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TREATISE ON THE

STANDARD ACCOUNTING SYSTEM FOR PRINTERS

INTERLOCKING WITH THE

STANDARD COST FINDING SYSTEM

1920
UNITED TYPOTHETAE OF AMERICA
CHICAGO, U. S. A.

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TREATISE ON THE STANDARD ACCOUNTING SYSTEM FOR PRINTERS

INTERLOCKING WITH

THE STANDARD COST FINDING SYSTEM

Prepared by
COMMITTEE ON EDUCATION
UNITED TYPOTHETAE OF AMERICA
CHICAGO, U. S. A.
1920

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United Typothetae of America
Chicago, U. S. A.

Committee on Education

HENRY P. PORTER, *Chairman*, Boston
E. LAWRENCE FELL, Philadelphia
A. M. GLOSSBRENNER, Indianapolis
J. CLYDE OSWALD, New York
TOBY RUBOVITS, Chicago
F. W. HAMILTON, *Education Director*, Boston

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FOREWORD

The introduction of the Standard Cost Finding System for Printers, in 1909, created an ever increasing demand for an Accounting System which, by interlocking with the Cost Finding System, would enable printers to record, classify, and analyze all the financial details incident to their business.

This need grew as printers acquired a more comprehensive knowledge of costs, for while some printing firms had good accounting systems that met their individual requirements more or less successfully, nevertheless there was no standard method which could be adapted to the requirements of printers generally.

Recognizing this necessity, the United Typothetae of America in 1917, through its National officers, commissioned its Committee on Education to prepare an Accounting System that would meet the requirements of the printing industry and at the same time interlock with the Standard Cost Finding System.

In the performance of its task it was necessary that the Committee first make a careful survey of conditions and, through extended inquiry, ascertain what statistical records the industry desired in addition to obtaining the usual financial information. As a result of this inquiry the Committee was enabled to compile a System, known as the Standard Accounting System for Printers, and which was endorsed by the National officers of the United Typothetae of America, and also was adopted at the 1918 Annual Convention as the official United Typothetae of America Accounting System.

The success of this System, which was designed primarily for larger plants, created a demand for a System sufficiently flexible to meet the needs of small and medium size as well as large plants. Early in 1919 the Committee undertook to compile such a System, and presents herewith the result of its efforts.

This new System, while retaining all the principles of the former System, has that degree of flexibility which makes it easily adaptable to any size printing plant, whether operating one or many departments. This has been adopted (1920) as the official Accounting System of the United Typothetae of America and supersedes the former System.

In the compilation of the Standard Accounting System a number of eminent authorities were consulted. The Committee also had the benefit of the advice of a number of practical men in the industry and these gave valuable assistance.

Taking the broad view that the object of accounting is to ascertain, compile, and present in a comprehensive manner for administrative purposes, all the facts concerning the financial operations and conditions of a business, the Committee endeavored to compile a System that would present this information. To do so it was necessary to provide not only a set of primary books that would be in accordance with the recognized principles and practice of standard accounting, but also to provide a number of accessory books or records whereby the printer may obtain important departmental statistics.

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As will be seen by the ruled forms comprising this System, the primary books are of white paper and the accessory records of buff colored paper, this distinction of color readily identifying the two classes of books.

Chief among the statistical information which the accessory records provide is that of *departmental balances,* which enables the printer, as explained in this Treatise, not only to ascertain the cost of production in the various departments, but, in addition, to obtain the gain or loss each month for each of these departments. The Committee believes that this feature will prove to be of very great advantage in the administration of a printing business.

The various pages or forms as shown in the Demonstration Book accompanying this Treatise have been given identifying letters or symbols, following the practice of the Standard Cost Finding System. It will be noted that, while the Committee on Education has also revised the Standard Cost Finding System along with the Accounting System, no change has been made in the well-known identifying symbols of the two cost forms which interlock the Bookkeeping and Cost Finding Systems.

In connection with the compilation of the Accounting System it was necessary to compile a Treatise that would explain its operation. Accordingly a Demonstration Book, showing all the forms, was prepared, entries were made therein, and transactions recorded in order to illustrate all the bookkeeping details. Several appendices were also added, including a Glossary, a series of actual forms showing the adaptation of the model form to plants of various sizes, and the revised treatise of the Standard Cost Finding System.

It is necessary that this Treatise be consulted when the Standard Accounting System is examined. The Treatise has been carefully prepared and it is believed that it will make every point clear. An Index has also been prepared, and made a part of the Treatise, for quick and easy reference. A knowledge of bookkeeping is desirable for the best understanding of the System, for it has been assumed in the preparation of this Treatise that the reader is somewhat familiar with ordinary bookkeeping practice.

The Standard Accounting System is relatively simple in operation and should be readily understood by the average bookkeeper who also understands the principles and operation of the Standard Cost Finding System.

The Committee takes pleasure in acknowledging its indebtedness to William Morse Cole, M.A., Professor of Accounting, Harvard University; J. Hugh Jackson, C.P.A., Assistant Professor of Accounting, Harvard University; Mr. Frank W. Fillmore, Chief Accountant, United Typothetae of America, and Mr. Edgar E. Nelson, Secretary, Boston Typothetae Board of Trade, for assistance in the preparation of the System.

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TREATISE ON THE

STANDARD ACCOUNTING SYSTEM FOR PRINTERS

INTERLOCKING WITH THE

STANDARD COST FINDING SYSTEM

PART I—GENERAL PRINCIPLES

INTRODUCTORY

Contrary to common belief, accounting is a very old science. In almost all of the civilizations that have existed for more than six thousand years there may be found remains of complete records of businesses and of business and financial transactions, and for more than four centuries the business world has used what is commonly termed "Double Entry" bookkeeping. Yet it is within the lifetime of the ordinary business man of today that accounting has come to play so important a part in the business success of the nation, and the last few years have seen its greatest and most marvelous development.

Today the man who has no adequate records from which to determine his costs, or to record properly the happenings of his business is like one blindfolded who believes he is treading safely a smooth and pleasant highway, when in fact he is in the act of stepping over the brink of a precipice. Without adequate accounting many a man, unknowingly, continues to give all his would-be profits to his customers; he chases himself around a circle, so to speak, works hard without getting anywhere, and never achieves that prosperity which has been his life's goal. It is perhaps true that in no line of business activity are the technical processes understood more thoroughly than in the printing industry; yet it is a fact that the printing business, although ranking fifth in value among the manufacturing industries of the country, is just realizing its desire for an adequate standardized system of accounting.

The Standard Accounting System for Printers has been designed to give to the printers of America a uniform method of keeping their accounts. It is simple and complete in itself; it is sufficiently elastic to meet the needs of any printing business whether large, medium, or small, and it interlocks the financial (or general) books of account with the Standard Cost Finding System which has been in successful operation for many years.

NOTE.—It is important that the reader refer to the various pages of the Standard Accounting System Demonstration Book, as indicated throughout this Treatise, in order to obtain a clear understanding of the Accounting System. Unless this Treatise is mentioned specifically, all page references refer to the Demonstration Book.

WHAT IS ACCOUNTING?

Accounting is the science by which business or financial transactions are properly classified, recorded, analyzed, and interpreted for the purposes of management. Bookkeeping consists in systematically recording business transactions as they take place.

To differentiate between accounting and bookkeeping is not always easy. It is obvious that accounting is the broader term; it is the real science and gives "the why," while bookkeeping, may we say, is an art and explains "the how."

Accounting is a science as mathematics is a science. Bookkeeping is an elementary part of accounting as arithmetic is an elementary part of the science of mathematics. As it is impossible for anyone to understand or to appreciate the higher phases of mathematics without an adequate knowledge of arithmetic and elementary algebra, so it is impossible to understand adequately the science of accounting without a thorough knowledge of the principles of bookkeeping.

An English accountant, Mr. F. W. Pixley, has divided accounting into three parts, well illustrating the difference between the science of accounting and the art of bookkeeping. His division is:

(*a*) Constructive Accounting
(*b*) Recording Accounting
(*c*) Analytical and Interpretive Accounting

Constructive Accounting, as the term is used, includes an analysis of the problems and needs of a business, the building up of a general classification of accounts, the construction and preparation of proper forms and records, and the giving of directions as to the use of the system produced. This requires originality, perception, power of analysis, and visualization, and is considered the most difficult and highly specialized branch of accounting. It is this part of the work which has been done by the United Typothetae of America in the Standard Accounting System, and which this Treatise is to explain.

The Recording part of accounting is commonly called Bookkeeping and consists in recording systematically and in chronological order the transactions of the business. This is the part which the bookkeeper does after the records and books of account have been prepared for him. In other words, after the Standard Accounting System has been properly installed in your plant by a Typothetae accountant, your bookkeeper will keep the books and records, and will be, in Mr. Pixley's language, a recording accountant.

The Analytical and Interpretive part of accounting is known usually as Auditing. It includes not only the inspection and examination of the work done by the bookkeeper in the books of account prepared for him, but also the preparation of schedules and exhibits, recommendations concerning accounting and business methods, and an interpretation of all findings so as to give to the executives of the business the information they need and desire.

PURPOSE AND BASIS OF ACCOUNTING

The purpose of accounting is to ascertain, compile, and present in a comprehensive manner, for administrative purposes, all facts concerning the financial operations and conditions of a business. Specifically, these purposes are:

1. To determine the amount of the original investment. If a certain amount of cash, equipment, paper stock, etc., represented the original investment in your business, the books of account would not be complete if they did not show what this original investment was composed of and what was its cost value.

2. To show the prosperity of the business. To state this another way, the books and records must show whether, over a specific period, the business is losing money or is making money for the investors.

3. To know the net worth of the business as at any given date. All assets owned by the business and all liabilities of the business must be shown by the books. The excess of assets over liabilities, which can then be quickly and easily ascertained, must equal the proprietor's interest in the business. This net investment of the proprietor, or the proprietorship, will be recorded on the books also, being found in the proprietor's, the partners', or the corporate capital stock and surplus accounts. The business may consist of any form of business organization, but always the books must show the present investment, which will be equal to the excess of the assets over the liabilities.

Double entry bookkeeping is based on the equation

Goods = Proprietorship,

or, in other words, the net property which one possesses equals what one is worth.

To use a simple illustration, if a man possesses $500.00 in cash, which represents all the property he owns, and if he has no liabilities of any kind, he is worth $500.00, and it may be said that

Goods $500.00 = Proprietorship $500.00.

Suppose, now, that this individual goes to the bank and borrows an additional $500.00. He then possesses $1,000.00 of property, but he also has liabilities, or debts, amounting to $500.00. The equation will then read

Goods $1,000.00 = Liabilities $500.00 + Proprietorship $500.00.

It will be noted that this increase in property, offset by an equivalent increase in liabilities, has not in any way changed the net worth, or proprietorship. The individual is worth just as much as he was worth before incurring the indebtedness at the bank, or, as we have stated it above, the net property which one possesses equals what one is worth.

To show more clearly that the net property which one possesses equals what one is worth, the last equation may be stated

Assets $1,000.00 — Liabilities $500.00 = Proprietorship $500.00.

It is thus seen that *proprietorship* is the *excess of assets over liabilities* and represents the net equity of the investors in the business. This simple equation, which is the foundation of our modern system of accounting, is in reality the Balance Sheet of today; for what else does the modern balance sheet reveal than the total property of the corporation or firm, its total liabilities, and its proprietorship? A balance sheet may be stated in either of the two forms represented by the last two equations given above. In other words, the modern balance sheet may show, in two parallel sets of figures, the total assets and offset against these the total liabilities and total proprietor-

ship, the sum of the assets equaling the sum of the liabilities plus the proprietorship. This form of balance sheet represents the equation

Assets = Liabilities + Proprietorship,

and is the form used by the United States Steel Corporation, the great railroad companies, and many other great financial and business concerns in their published reports.

Or, in more simple form, the balance sheet may show the total of the assets, less the sum of the liabilities, the excess of assets over liabilities equaling the net proprietorship. This form represents the equation

Assets — Liabilities = Proprietorship,

and is used by Sears, Roebuck & Company and many other large concerns. It is certainly the more simple form, and for this reason is the form adopted in the Standard Accounting System. As illustrated in the Demonstration Book (page 45), the balance sheet adopted in the Standard Accounting System may be expressed in the brief equation

Assets $50,390.71 — Liabilities $6,501.94 = Proprietorship $43,888.77.

In practice it will be found that all three items composing the equation, namely, the assets, the liabilities, and the proprietorship, will be made up of several, or many, items. In the balance sheet shown, the "assets" are composed of fourteen items, the "liabilities" of five items, while three separate items are included in the "proprietorship."

Whichever form of balance sheet is used, it is the balance sheet and accompanying income statement toward which all accounting activities are directed. While the balance sheet records the total value of assets, the amount of liabilities, and the present proprietorship, it is the income statement which explains in detail the *changes* that have taken place during the given period in the proprietorship as recorded on the balance sheet. Therefore, whatever books of account may be kept, whatever records are required to obtain the information necessary to determine costs, selling prices, receipts and disbursements of cash, etc., it must be remembered that any system of accounting is working continually toward the Balance Sheet and the Income Statement—to know the present amount of the proprietorship, and to ascertain whether the business has made or lost money during the period past.

THE SCOPE OF ACCOUNTING ACTIVITIES

The scope of accounting activities is as broad and as varied as business endeavor. In order to know what information shall be ascertained by any particular system of accounting it is necessary to have a knowledge of the individual business and, to a certain extent, of what information the proprietor of that business desires to have placed before him. In general, it may be said that accounting furnishes the information from which may be determined the profits and losses of the business. It provides the means of determining the cost of producing the goods or commodities that the business deals in; through this determination of cost it aids in correctly fixing selling prices; it determines the efficiency of different departments, or of the business

as a whole, for a given period; and it enables a comparison to be made of the efficiency of these departments, and of the business as a whole, as between different periods Thus, for instance, the productive efficiency of the Hand Composition Department can be compared for separate months; such comparisons are possible also for each department of the business, as well as for the business as a whole. It is in these ways that a system of accounting becomes invaluable as an aid to management, and it is this kind of information that every system of accounting should furnish.

Accounting may aid also in the determination of property values for any of the various purposes for which valuations may be desired; namely, for purchase, for taxation, etc. It also attaches responsibility to some particular person for cash, for goods, or for any property intrusted to employees, to customers, or to the proprietors of the business. One of the greatest values of all accounting is the ability, by its use, to attach definite responsibility to particular individuals.

KINDS OF RECORDS NECESSARY

The records in which bookkeeping entries are made may be divided into

(*a*) Books of Original Entry
(*b*) Books of Final Entry
(*c*) Accessory Records

By a Book of Original Entry is meant a book in which the business transaction is first recorded. While today there are many forms of Books of Original Entry, the book which has been longest used for this purpose is commonly known as a Journal.

Other common Books of Original Entry, which are really only special forms of the Journal, are

Cash Book
Purchase Book, or Register
Sales Book, or Register
Voucher Register

These books, as their names imply, are special journals in which transactions of particular kinds are recorded. Thus all cash transactions, both of receipts and disbursements, are recorded in the Cash Book. As will be explained later in detail, the purpose of entering these cash items in a separate book of original entry is (*a*) to obtain more ready information concerning Cash, and (*b*) to save bookkeeping labor. One or both of these things is the only excuse for the existence of any special book of original entry. Likewise, the Purchase Book, or Register, would be used to record all purchases of merchandise, and sometimes purchases of supplies and all items of expense to be paid as well. The Sales Book, or Register, records all sales, and makes any desired analysis of them. The Voucher Register, while possessing certain accounting technicalities which will not be discussed here, in the main serves the same purpose as the Purchase Register; only in very unusual cases, if ever, would both books be used, though the Voucher Register, in recording every single item for which the business must pay (purchases of merchandise, wages, supplies, expenses, etc.) would give

a broader and more varied service than the Purchase Book, or Register. A number of other books of original entry, not necessary for the purpose of this discussion, may also be found described and explained in any standard text on accounting theory.

The Standard Accounting System recommends the use of two Books of Original Entry:

Cash-Journal and Purchase Register (Form A)
Sales Register (Form B)

The Cash-Journal and Purchase Register combines in a labor-saving book of entry the ordinary Journal, Cash Book, and Purchase Book. The Sales Register not only records all sales, but analyzes the cost of producing these sales. The use of both of these books will be discussed and illustrated later in this Treatise.

By a Book of Final Entry is meant a Ledger, or the book to which the transaction recorded in the first place in the Book of Original Entry is finally transferred. To many the Ledger is simply a convenient method of pigeonholing, or classifying the transactions which have been first recorded in some Book of Original Entry. Thus, in the Book of Original Entry there may be in a certain month several hundred or more cash transactions; these transactions may be scattered over a great number of pages and will, undoubtedly, be intermingled with many other transactions of various kinds. It is obvious, from the above illustration alone, that if no other record were kept than the Book of Original Entry it would be worth very little for analytical or administrative purposes. But when all items of cash, both of cash received and cash disbursed, are gathered together chronologically under one heading and in one place in the ledger, they then become of value to the proprietor in the management of his business.

What is applicable to cash is applicable to transactions of any other kind and illustrates well the purpose served by the Ledger. Legally, the Ledger is the least important of the bookkeeping records, for it is simply a transcript of the original documents and is valuable only in so far as it is a correct transcript thereof; but from the standpoint of accounting, in the compiling of the information necessary to determine the profits and losses of the business during a certain period, and in determining the present amount of the assets and liabilities and proprietorship, the Ledger is the most important book in any accounting system. It is here that all information needed is arranged and classified for immediate use.

The Ledger recommended for use in the Standard Accounting System may be divided as follows:

General Ledger (Form C)
Factory Ledger (Form C–1)
Purchase Ledger (Form C–2)
Sales Ledger (Form C–3)

These Ledgers will be discussed later in detail, and, by means of a series of transactions, their connection with the accounting system will be illustrated.

By an Accessory Record accountants usually mean a book or business record in which neither the original entry nor the final entry are made but which supports or explains the entries made in those books.

Some of the common Accessory Records, which in a large sense are the original documents of the business, are the

Bank pass book
Check books, and cancelled checks
Notes Receivable and Notes Payable books (when not used as Books of Original Entry, and the postings made directly to the Ledgers from them)
Order books (as above)
Invoice books (as above)
Stock records
Invoices
Carbon copies of bills of goods sold (unless a Sales Book is not used, and all postings are made from these directly)
Cost statements and summaries
Schedules of fixed and variable charges, etc.

All of these records are essential to the successful operation of the business, and it is from them that the bookkeeping entries are made, but these things do not, of themselves, constitute either the original or the final entry for the business transaction.

The Accessory Records as illustrated in the Standard Accounting System consist of

Trial Balance (Form D)
Abstracts of Subsidiary Ledgers (Form D–1)
Financial Statements (Forms E–1, E–2 and E–3)
Order Book (Form G)
Summary of Sales for Year (Form H)
Schedule of Fixed Charges (Form J)
Summary of Department Costs (Cost Form 9–H)
Individual Job Summary (Cost Form 2)

It is recommended that the Accessory Records, Forms E, H, J, and Cost Form 9–H be kept in a loose-leaf binder. Form G and Cost Form 2 should be kept separately, each being kept in a bound or loose-leaf book by itself. **Cost Form 9–H and Cost Form 2 are a part of the Standard Cost Finding System and are the only cost forms considered in this Treatise, because they summarize the information which is necessary to interlock the Standard Accounting System with the Standard Cost Finding System.**

PRINCIPLES OF BOOKKEEPING

While it is impossible to go into great detail regarding the more simple principles of bookkeeping, a brief discussion of these principles will now be given.

In Professor Cole's "Accounts: Their Construction and Interpretation,"* it is stated that there are only three principles of bookkeeping, namely,

(*a*) The Principle of Double Entry, or the distinction between Debit and Credit.

* William Morse Cole, "Accounts: Their Construction and Interpretation": 1915, Houghton-Mifflin Company, Boston and New York.

(*b*) The Principle of the Special Book and of the Special Column (the labor saving devices).

(*c*) The Principle of distinguishing between charges to Capital and charges against Revenue.

THE PRINCIPLE OF DOUBLE ENTRY

Every business transaction has a definite effect upon the condition of the business. One transaction may simply convert one asset into another asset, as when cash is converted into paper stock by the purchase of paper for cash, or when Accounts Receivable are converted into cash by a customer paying his account. Another transaction may mean the increasing or decreasing of some asset with a corresponding increase or decrease in a liability. This happens when stock is purchased on credit, thus increasing the asset of paper stock and at the same time increasing the amount owed creditors on account. The same thing is true if cash is borrowed at the bank on the firm's note; for the asset Cash is increased by the amount of the loan but there is a corresponding increase in the liability on Notes Payable.

Likewise a decrease may take place in both assets and liabilities, as when a creditor is paid in cash, thus decreasing the amount owed creditors on account and at the same time depleting the cash account by the amount disbursed. Other transactions affect the proprietorship, increasing or decreasing it, and at the same time increasing or decreasing the net excess of assets over liabilities. These latter transactions are too numerous to require further comment.

The real question is, how are these transactions affecting assets, liabilities, and proprietorship to be recorded in the books of account. It is here that the principle of Debit and Credit is applicable.

Debit arises from the Latin word "debet," meaning "he owes," while Credit is identical with the Latin word meaning "he intrusts."

Debit means not only that something is owed, but that a particular person, property, or force is responsible for some definite value. For instance, suppose that $1,000.00 in cash is received into the business. The cash drawer, or the cashier, is responsible to the business and must account for the value intrusted to it; or, suppose that Smith & Company buys a $500.00 job of printing on account, then Smith & Company are responsible to the firm for that value and they must be debited on our books for the value of the printing received by them. Therefore, in the former case we would debit the Cash account for $1,000.00, and in the latter case we would debit Smith & Company for $500.00. But as every transaction has two sides or two parties to it, a buyer and a seller, a giver and a receiver, it is obvious that when one person, or property, or force receives value or assumes responsibility, another person, or property, or force has granted that value or discharged a responsibility; thus, when the above $1,000.00 in cash was received, someone must have given that cash to the business as a grant of value (a loan perhaps), or as a discharge of a responsibility previously incurred (a purchase, perhaps, made some time previously). Therefore, it is not sufficient in our Books of Account simply to debit the cash for $1,000.00, but we must, at the same time, credit the person, or property, that enabled us to receive that $1,000.00.

Suppose that the $1,000.00 was received from John Doe in payment of a debt previously incurred. We must then make an entry in our books debiting Cash, $1,000.00, and crediting John Doe, $1,000.00.

In the second transaction, when Smith & Company are debited for $500.00 the Sales account must be credited for the $500.00, for value has been granted to the business through sales.

If these transactions were recorded in a simple Journal they would appear as follows:

JOURNAL

Date	Folio	Explanation	Debits	Credits
Dec. 1	1	Cash	$1,000.00	
	2	To John Doe		$1,000.00
Dec. 5	3	Smith & Company	500.00	
	4	To Sales		500.00

While any form might have been devised for the purpose of recording such simple transactions, the above is the standard journal form. The Date column requires no explanation. The narrow column headed "folio" is the page column, and here are entered the pages of the Ledger to which the various debits and credits are transferred. It is by means of these page directions that quick reference can be made from one book to the other. The next column contains the accounts debited and credited, and any explanation desired may be written just below the entry. As the debits and credits in each entry must be equal, it is common practice to have the word "to" appear as a sign of equality. Practice has decreed that the left column be used for debit amounts and the right column be used for credit amounts. If the columns had been used the other way from the beginning, it would of course be correct to have the money columns interchanged, and the credit items stated first in the entry. But only the scheme illustrated can be correct now, because centuries of use have decreed it so. The first entry would be read "Cash to John Doe, $1,000.00." That can have only one meaning, namely, that the cash account is debited for $1,000.00 and that John Doe is credited for $1,000.00. This well illustrates why bookkeeping is defined as the *systematic record* of business transactions.

Many other transactions similar to those given above might be recorded in the simple Journal shown. Historically, all business transactions were first recorded in the two-column Journal, and all the principles of debit and credit may be illustrated in this simple two-column form. At the end of the month, or other period chosen, the transactions thus entered in the Journal would be transferred, or posted, to the Ledger accounts. This act of posting is simply the transferring of items from the Books of Original Entry to the Books of Final Entry.

To illustrate, to post the items shown above in the Journal to the Ledger we would open accounts in the Ledger with Cash, with John Doe, with Smith & Company, and with Sales. The item of Cash shown in the Journal would then be transferred, or posted, to the debit of the Cash account. The amount will be placed in the debit Amount column, the date in the Date column, the page of the Cash Book from which the item was posted would be entered in the narrow Folio column, and the words "John

Doe" in the Explanation column. Turning then to the Journal we should place in the journal Folio column the page of the Ledger account to which the item had been posted. Similar procedure would be followed for each item appearing in the Book of Original Entry.

Supposing that the page of the Journal shown above was page 1, while the four ledger accounts appeared on pages 1, 2, 3, and 4, respectively, of the Ledger, the Book of Original Entry would appear as above and the Ledger accounts would be as follows, after the posting had been completed:

CASH (1)

Date	Explanation	F.	Amount	Date	Explanation	F.	Amount
Dec. 1	John Doe	1	$1,000.00				

JOHN DOE (2)

				Dec. 1	Cash	1	$1,000.00

SMITH & COMPANY (3)

Dec. 5	Sales	1	$500.00				

SALES (4)

				Dec. 5	Smith and Company	1	$500.00

The transactions entered above in the Journal, and posted to the Ledger accounts, illustrate in a simple way the principles of double entry bookkeeping. All business transactions are recorded first in some book of original entry and each transaction, according to the rules of double entry, must have equal amounts of debit and credit. It is not necessary, however, that there be only one debit and one credit to each entry, for there may be several items entering into one business transaction. To illustrate, John Doe, in paying his debt of $1,000.00, might have given cash $500.00 and a note for $500.00 to cancel his indebtedness. Our entry would then appear in the Journal as follows:

JOURNAL

Date	F.	Explanation	Debit	Credit
Dec. 1		Cash	$500.00	
		Notes Receivable	500.00	
		To John Doe		$1,000.00

In the ordinary complex business of today, it is perhaps safe to say that the majority of business transactions will require more than one debit, or more than one credit, or both. In the Cash-Journal and Purchase Register (Form A), as illustrated in the Demonstration Book, numerous transactions of this kind will be found. Thus, the first entry on page 10, which records the debits to the Departmental accounts for the monthly provision for reserve for overhead, and the credit to the Reserve for Overhead account, consists of eight debits and one credit—yet, in accordance with the principle of double entry, the total of the debits exactly equals the credit amount. Again, the first entry on page 13 is composed of four debits and four credits, the second entry of eleven debits and one credit, but in each case the total of the debits equals the total credits. It all goes back to the fundamental statement of debit and credit, namely, that when some person, or property, or force receives value or assumes responsibility, another person, or property, or force grants that value or discharges a responsibility.

When John Doe pays the $1,000.00 to cancel his indebtedness to us, we receive the $1,000.00 (whether it be cash, notes receivable, or a combination of values) in cancellation of that debt. Whatever the nature of the transaction, the principle holds true, and the responsibility is both assumed and discharged.

In the Standard Accounting System all transactions are recorded originally in either the Cash-Journal and Purchase Register (Form A), or in the Sales Register (Form B). In the Sales Register there will be recorded only sales to customers or other work which has been done in the manufacturing departments of the business, while all other transactions, of whatever nature, will be recorded in the Cash-Journal and Purchase Register. In each of these books the principles of debit and credit will be applied continually to all transactions recorded therein.

The transactions then are grouped, or classified, in the Ledger under the various kinds of property, expenses or incomes which they affect. These accounts (as used for illustrative purposes) are shown in the Demonstration Book on pages 24 to 31, inclusive. In these accounts all debits and all credits are grouped in detail, or in total, so that reference to any account in the Ledger shows, in the aggregative, what has taken place during the period past as affecting that particular property, person, or force. It is in the Ledger accounts that the debits and credits reveal their real value, for it is in the Ledger that each person, property, or force shows the total of the responsibility assumed and discharged during the period under consideration.

RULES

The working rules for debit and credit may be stated briefly as follows:

Debit persons for values (cash, merchandise, or services) received from the business, for they become responsible to the firm for that value which they have received.

Debit Cash, Merchandise, Notes Receivable, Notes Payable, or Property, respectively, when received by the business, for each becomes responsible for the amount it cost the firm to obtain it.

Debit cost of services or expenses (Rent and Heat, Light, Power, Salaries, etc.) for the amount necessary to obtain them, for they are responsible to the business for all amounts thus spent (or temporarily charged).

Credit persons for values (cash, merchandise, or services) received from them by the business, for they have granted value to the business or discharged a previous responsibility.

Credit Cash, Merchandise, Notes Receivable, Notes Payable, or Property, respectively, when given out of the business, that is, when it grants value, or when it discharges the responsibility incurred by it when the property came into the possession of the business.

Credit services or expenses for any returns they make to the business, or when they discharge a responsibility for which they were previously charged.

In brief, then, the general rule may be stated as follows:

Debit, or charge, value received or responsibility assumed; credit value granted or responsibility discharged.

A thorough understanding of debit and credit, and of the process of journalizing or recording the business transactions in some book of original entry, and of the method of posting or transferring the various items in the books of original entry to the proper accounts in the Ledger, is necessary for any adequate understanding of the principles of bookkeeping. With such a knowledge anyone should be able to operate a simple set of books, though it is entirely possible that such a system would be inadequate for the complexity of modern business.

THE LABOR-SAVING DEVICE—PRINCIPLE OF THE SPECIAL BOOK AND THE SPECIAL COLUMN

The number and complexity of business transactions have made the simple process of bookkeeping previously described inadequate for ordinary purposes, and so, many special forms of books of original entry have been designed, each form being adapted usually to the needs of the particular business in which it is to be used. Suppose, for illustration, that during a certain month five hundred payments of cash were made. If the simple two-column Journal form were used, it would mean five hundred separate postings to the Cash account in the General Ledger. It is perfectly logical, therefore, that bookkeepers should have attempted to eliminate much of this labor by the designing of special books, or by the use of separate books for recording transactions of particular kinds. A simple Journal, which would eliminate the necessity of posting all cash items separately, might be as follows:

JOURNAL

Date	F.	Explanation	Cash Dr.	Cash Cr.	General Dr.	General Cr.
Dec. 1		John Doe—cash in full payment of account	$1,000.00			$1,000.00

In this Journal all cash receipts would be entered in the Cash debit column; all cash disbursements in the Cash credit column, while all other items would be entered in the two General columns depending upon whether they were debit or credit amounts. Moreover, since the two Cash columns "ear mark" the cash items as debits or credits, it is unnecessary to write "Cash" in the Explanation column, or to give the cash amount a separate line for entry. Thus, the receipt of cash from John Doe, $1,000.00, which required two lines for entry in the simple two-column Journal, would be entered in this book as illustrated above. The fact that the thousand dollars is en-

tered in the Cash, Dr., column means that cash is debited, while John Doe is credited as in the two-column Journal.

Besides saving approximately one-half the labor of entering cash transactions, and requiring much less space, it will be unnecessary to post the individual amounts, both debit and credit, appearing in the Cash columns. At the end of the period these two columns will be totaled and will be posted to the debit and credit sides, respectively, of the Cash account in the General Ledger. One-half the labor of posting is thus eliminated; for instance, one hundred cash transactions would require at least two hundred postings from the ordinary two-column Journal, for each entry must have at least one debit and one credit. By the use of these special columns the one hundred transactions would require one hundred and two postings—one posting for the total of each Cash column, and one hundred postings for the off-setting items. Furthermore, these special columns eliminate from the Cash account many small and meaningless items and give the same net result in the Ledger in better form than would be given by the detailed posting. All items in the other two amount columns will, of course, be posted individually to the Ledger accounts named in the Explanation column.

This principle may be carried just as far as desired, for instance, special columns may be added for the purchase and sale of merchandise, for the segregation of certain expenses, and for various purposes, many of which are illustrated in the Standard Accounting System Demonstration Book. Not only do these special columns in the Journal save labor, but much better information for administrative purposes is obtained by their use. The proprietor can ascertain at once the total receipts and disbursements of cash, the balance of cash on hand, the amounts of purchases and sales for the current period, the totals of various items of expense, and many other similar items of interest and of great importance.

As business grew and became more complicated it was impossible for one bookkeeper to record all transactions occurring in the business. Therefore, instead of having one Journal with many columns in it, it was more convenient and desirable to use several simpler books. Accordingly, a special book was used for cash transactions, another book for purchases, a third book for sales, while the Journal, which for so long was the only book of original entry, came to be used to record only those transactions which could not be recorded in any other book of original entry. In this capacity the Jonrnal is largely used even today.

Each of these books of special entry, in its simplest form, would appear the same in ruling as the simple two-column Journal shown before. In small businesses these identical books will oftentimes be found at the present time, and they form the basis of most bookkeeping systems in modern business.*

For the reasons stated above, namely, both to save labor and to obtain more and better information for the management, special columns are added to all these books, and it may be said truthfully that the only limit to the development of this principle of the special book and the special column is the needs and complexity of the business using the books. It is essential to remember, however, that *the thing of primary im-*

* As complete discussions for the use of these books will be found in any standard text-book on the subject, and as these specific books are not used in the Standard Accounting System, it is not thought desirable to enter into greater detail concerning them. See Cole, "Accounts: Their Construction and Interpretation"; Kester, "Accounting, Theory and Practice," Vol. I (Ronald Press Company, New York); Klein, "Elements of Accounting" (D. Appleton & Company, New York); Miner and Elwell, "Principles of Bookkeeping" (Ginn & Company, Boston); and others.

portance is the obtaining of more and better information for the management; if it is possible to do this and to save labor at the same time, it should of course be done, but the purpose of bookkeeping is to get information and *not* to save work.

In the Standard Accounting System Demonstration Book the Cash-Journal and Purchase Register (Form A) combines in its numerous columns the Cash Book, the Purchase Book, and the Journal, while a Sales Register (Form B) is used to record all information regarding sales and the cost of producing those jobs for sale. As described and illustrated later, the method of recording transactions in these books, and the method of posting these records to the proper Ledger accounts is simple in the extreme The debits and credits are always equal, and, as the same rules of debit and credit apply for recording the transaction, it is immaterial whether it be recorded in the two-column simple journal or in the multiple column labor-saving book. After much careful study, and after a somewhat broad experience with plants of large, medium, and small dimensions, the United Typothetae of America, through its Committee on Education, decided upon the type of books of original entry shown as Form A and Form B, respectively. It is undoubtedly true that no other scheme is so elastic, and can be adjusted so easily to large, medium, and small businesses as the one here presented in the Standard Accounting System.

THE LABOR-SAVING DEVICE—CONTROLLING ACCOUNTS

In connection with the Special Book and Special Column the Controlling account is one of the greatest labor-saving devices known to modern bookkeeping. A controlling account, as the word signifies, is a single account in the General Ledger which controls, or summarizes in total, a group of accounts in a subsidiary ledger. In other words, it becomes unnecessary to keep the detailed accounts in the General Ledger because these accounts may be kept in a special ledger, or in a section of the same ledger, thus not making the General Ledger too bulky because of the number of accounts. To illustrate, there may be several hundred or even several thousand accounts with customers, but by use of the Controlling account there would be only one customer's account, namely, "Accounts Receivable," in the General Ledger. As illustrated in the Standard Accounting System, all customers' accounts are kept in a Sales Ledger (Form C–3), and all details of each customer's dealings with the business will be found in his individual account in the subsidiary ledger. These numerous customers' accounts, however, are summarized or controlled in the General Ledger Accounts Receivable (account No. 3, page 24, Demonstration Book). So, in making a summary of the business, it is unnecessary to list each individual customer's balance in such a summary, but the total amount due the business from customers may be ascertained from the Accounts Receivable account, and the aggregate of these customers' balances included. In such a statement of financial condition, the management is interested usually not in what each customer owes on account but in the total amount due from this source. If we turn to account No. 3, page 24 of General Ledger, it will be observed that the Accounts Receivable account had a balance as of December 1st of $8,965.00. Total charges to customers for the month amounted to $8,526.00, while the month's collections amounted to $7,820.41. The total amount due from all customers at the end of the month was $9,670.59, which is the total of all balances due from customers as shown by their individual accounts in the Sales Ledger (see Sales Ledger accounts on pages 38 and 39 of the Demonstration Book, the abstract of this Ledger being shown on page 41). To repeat again, the Ac-

counts Receivable account controls the Sales Ledger, because it summarizes in total the individual accounts with customers as shown in that book.

Additional Controlling accounts illustrated in the Standard Accounting System are Accounts Payable (No. 12, page 26), which controls or summarizes the Purchase Ledger, and the Work in Process account (No. 6, page 25) which controls or summarizes the Factory Ledger. Other controlling accounts may be employed, if desired, for expenses, for plant and machinery, and for other similar items, but these usually would be used only in large or medium large businesses.

The Controlling account may be used most successfully by the use of the special column. By this scheme all items entered in the special columns may be posted individually to the proper accounts in the Subsidiary Ledger, while the columns may be totaled at the end of the period and the totals posted to the General Ledger controlling account. Nothing can better illustrate how the controlling account summarizes the subsidiary ledger than that the *total* of a group of items, which have been posted to the detailed accounts in the Subsidiary Ledger, should be posted to the General Ledger account. Turning to the Sales Register of the Standard Accounting System (page 17, Demonstration Book), the individual jobs billed to customers during the month are shown. Each of these customers is debited in the proper account in the Sales Ledger for the amount shown opposite his name in the Accounts Receivable column. The total of the column, representing the sum of these charges to customers, and summarizing the individual postings, is carried to the General Ledger as a debit to the Accounts Receivable account (No. 3, page 24).

Similarly, the Cost Completed Work Debit column (page 17–A, Demonstration Book) contains the total of the items included in the various columns under "Factory Ledger Credits." At the end of the month, or period, the totals of the columns under "Factory Ledger Credits" are posted to the respective accounts in the Factory Ledger, while the total of the Cost Completed Work Debit column is posted to the credit of the Work in Process account (No. 6, page 25). This again summarizes in total the individual items posted to the respective accounts in the Subsidiary Ledger. In each of these cases in the Sales Register, the numerous customers' and plant operating accounts are eliminated from the General Ledger, but all needed information, for summary purposes, is found in the Accounts Receivable and Work in Process accounts, respectively.

Turning to the Cash-Journal and Purchase Register, all amounts appearing in the Accounts Receivable, Accounts Payable, and Factory Ledger columns are posted in detail to the proper accounts in the respective Subsidiary Ledgers and in total to the controlling, or summarizing, accounts in the General Ledger. If other controlling accounts were used in this illustrative set of transactions, it is probable that special columns would be provided for the special items. In the ordinary printing business, however, the three controlling accounts illustrated will be all there is any use for. At the close of the month the balance of these controlling accounts, Accounts Receivable (No. 3, page 24), Accounts Payable (No. 12, page 26), and Work in Process (No. 6, page 25), summarize in total the balances of the individual accounts as shown in the respective Subsidiary Ledgers. A comparison by the reader of the Abstracts of the Subsidiary Ledgers as of December 31st (page 41, Demonstration Book) with the balances shown for the respective controlling accounts in the Balance Sheet (page 45) will show this to be true.

Perhaps no aid in modern bookkeeping is more useful in the business office of today than the controlling account. While all detailed information is at hand for the management if such information is desired, these details are not in the way when the proprietor desires a quick résumé of his business as a whole. From the standpoint of the bookkeeping work, the controlling account enables the head bookkeeper to keep an accurate check on all the assistant bookkeepers who may be keeping the subsidiary ledgers. This is a most important audit check as well. While the application of the controlling account principle is oftentimes somewhat involved, it is very valuable, and a knowledge of the use of such accounts is essential to the understanding and operation of any modern bookkeeping system.

PRINCIPLE OF CAPITAL *vs.* REVENUE

All good bookkeeping, and accounting as well, is dependent upon properly distinguishing between items of capital and items of revenue. This is oftentimes a most difficult thing to do, for whether a business transaction affects a Capital account or a Revenue account depends in many cases upon the individual case. The principle involved is clean-cut, but judgment must be used in its application to concrete business transactions.

Capital accounts represent actual *values* owned or owed by the business; that is, all assets, liabilities owed outsiders, and, as well, the interest of the owners in the business, or the net proprietorship. These accounts, it will be recognized, are the Balance Sheet items, and reveal the condition of the business as of a given date.

Revenue accounts, on the other hand, represent those *forces* (rent, interest, sales, taxes, depreciation, etc.) which have been responsible in returning to the business certain values, or in taking from the business other values. Revenue accounts, in other words, are the Loss and Gain accounts of the business and add to, or detract from, the net proprietorship. They may be said to be historical in nature, not representing actual tangible value but simply recording the fact that income has been received or expenditures have been made, according to the source named.

For instance, what does a $100.00 item on the debit side of the rent account mean? Does the rent account represent $100.00 of tangible value, or does it simply record the fact that $100.00 has been paid out on account of some service which was essential to the business, but which, when once used, no longer represents any tangible value? If the amount represents actual present value, as when rent is paid in advance and is not yet consumed, it is a Capital account; if it is simply a record of an expense paid, it is a Revenue account. While "Rent" is usually a Revenue account, it may, as just illustrated, sometimes represent a Capital item; the same may be said of many other expense accounts. Likewise, an account which is usually a Capital account may sometimes represent a Revenue item. For instance, suppose you have $2,000.00 of paper stock, and, for some reason or other, this stock was stored in a separate but adjoining building. The Paper account will stand on your Ledger with a debit balance of $2,000.00, for the Paper account is responsible for that value. It is an asset of the business, and, of course, the Paper account is a Capital account. But, through the destruction by fire of the adjoining building your stock is all destroyed. What does the $2,000.00 balance in the Paper account represent then? To the extent that the loss is not covered by in-

surance the account has been transformed into a Revenue account, and will go into the Income Statement, and not into the Balance Sheet.

Suppose again the following: On the property owned by the Henry P. Nelson Printing Company and aggregating a little more than $40,000.00 (see page 20, the sum of the Capital Stock, Surplus, and Loss and Gain accounts, for these represent the excess of assets over liabilities), taxes of $220.00 are paid for the year. These taxes are paid *on account of* the property owned, but would anyone say that this amount should be charged to the Property account? It is obvious that it should not, and that the Taxes account represents nothing other than an expense. As explained later, either prepaid or accrued taxes might be included in the account. Repairs to the plant and equipment or other property of the business, while necessary to maintain the plant in an operating condition, do not increase the value of the property but simply maintain the plant at somewhere near the efficiency it was at the beginning of the period. Are amounts for repairs, therefore, to be charged to the Property account or to an Expense account? As said before, it is obvious that they are Revenue charges and in no way affect the Capital account except to maintain the capital assets in a state of operating efficiency; or, in other words, except to keep the Capital account itself from becoming a Revenue account.

While these illustrations are simple, the reader should grasp the idea that anything which does not add permanent value either by increasing assets, decreasing liabilities, or affecting capital investment, must be charged or credited to a Revenue account. Amounts spent simply to maintain assets are always charges against Revenue, and it is in this respect usually that the difficulty arises in distinguishing between Capital and Revenue expenditures. The real question is, whether the amount expended simply *maintains* the asset, or whether it adds a new and additional value to it. The Revenue accounts, of course, are brought together or summarized at the end of the operating period in the Loss and Gain account, so in this way they affect the proprietorship of the business. They do not, however, affect directly the individual Capital accounts and must be kept separate from them.

CAPITAL *vs.* REVENUE—CLASSIFICATION OF ACCOUNTS

A mechanical arrangement used by most accountants to segregate the Capital accounts from the Revenue accounts is known as a Classification of Accounts. This is simply an arrangement of the accounts in the Ledger and on the financial statements (Balance Sheet and Income Statement) so as to group together the accounts representing assets, liabilities, proprietorship, losses, and gains, each somewhat independent of the other groups of accounts.

On page 4 of the Demonstration Book will be found a list of the Capital accounts suggested by this System. The main groups into which these accounts are divided are Assets, Liabilities, Reserves, and Proprietorship, while on page 5 will be found the Revenue accounts suggested by the System. In neither case are these groups supposed necessarily complete, for any printing business may have occasion to use other accounts falling under either Capital or Revenue. This group is illustrative, however, and the ability to use these accounts will assure the ability to add any other accounts.

As shown by the list of accounts, Assets represent the property in the business by means of which it earns a revenue. In a single proprietorship, or partnership, these as-

sets represent the cash, property, or other values contributed by the proprietor or by the partners, respectively, toward the common fund to be employed as capital in the production of revenue. In the case of a corporation, the assets are represented by the cash or other proceeds of the capital stock, the cash received from the sale of bonds, or other property employed in producing revenue for the company.

Fixed Assets consist of the machinery and equipment, for instance, which are purchased to place the enterprise in position to operate as a "going concern," and which are capable of lasting over a series of processes of production, while Current Assets represent the stock or supplies on hand, such as paper, ink, etc., and, in addition, cash and the notes and accounts owed to the business by customers. Current Assets may be said, in general, to represent those values which will be converted in the ordinary course of business into cash; while fixed assets will be converted into cash only through charging to the product turned out the loss in value and efficiency of these assets through wear and tear and obsolescence. Fixed assets are so called, not because they will never wear out, but because they will last for a period of years, this period depending upon the particular asset. Fixed assets continually decrease in value through wear and tear, the passage of time, and obsolescence, and this loss in value must be considered as an expense to the business and must be taken care of on the books of the firm. This loss, or depreciation, will be considered later in the Treatise.

Deferred assets are really deferred charges to expense. They represent amounts paid out for certain expenses, the value of which has not been consumed by the business. The deferred assets, as shown by this Classification of Accounts, consist of insurance and taxes. However, taxes will just as often represent an accrued liability, and that is what the Taxes account (No. 19, page 27) does show in the transactions of the month used to illustrate the Standard Accounting System.

Suppose that on January 1st the firm takes out an insurance policy and the insurance premium is paid for that entire year. It is obvious that on January 31st, when the first monthly closing of the books is made, this insurance charge has been only one-twelfth consumed, that is, only one-twelfth of it properly could be charged as an expense. The remaining eleven-twelfths must be absorbed during the other eleven months of the year and therefore on January 31st is a Deferred Asset on the Balance Sheet and on the books of the firm. The same procedure would apply to any expense not entirely consumed during the immediate operating period.

Liability accounts, on the other hand, represent debts owed by the firm, such as wages accrued to employees, or accounts or notes owed to the creditors of the business. These are all Current Liabilities here, meaning that they must be met soon in Cash.

The Reserves *represent* what would otherwise be reflected in the Loss and Gain account, and are set aside or "earmarked" for a special purpose, in the use of which the amount may or may not be entirely absorbed. Some of these so-called Reserves, as explained later in the discussion of the respective Ledger accounts, are not true reserves at all, but are simply *holes* in the corresponding Asset accounts. Thus the Allowance for Depreciation account simply *measures* the loss in value and efficiency of the Machinery and Equipment account, which amount has been charged to operations as a manufacturing cost. These Reserves are not liabilities, but either measure the loss in some Asset account or represent an appropriation of true surplus for some purpose.

The Proprietorship accounts represent, of course, the investment of the partners or stockholders in the business. These accounts, which are here called Capital Stock, Surplus, and Loss and Gain, are sometimes included among the liabilities, but they are not debts to be paid and must only ultimately be accounted for upon the dissolution of the business. In the case of a single proprietor, or even of a partnership (if the partners consent), there is no reason, providing the business remains solvent, why this original investment cannot be withdrawn, but this investment, like the Capital Stock of a corporation, is not considered an actual liability of the business. It represents the net difference between the assets and liabilities of the business, and becomes an actual liability only upon the dissolution of the firm.

Surplus account represents earnings that have accrued during past periods. The Loss and Gain account acts as a clearing account for the current period, showing in summary the expenditures and income of the business. At the end of the fiscal year the total net balance of the Loss and Gain account represents the net earnings of the period. If dividends are declared, they should be charged against this account and the balance may be transferred to Surplus. The Surplus account thus represents the accumulation of all these balances not distributed as dividends, or not specially appropriated or reserved for some definite purpose.

The Revenue accounts (page 5) include both the accounts showing earnings of the business and accounts recording expenses of the business. These Revenue accounts may be divided roughly into (*a*) manufacturing expenses, (*b*) administrative expenses, (*c*) selling expenses, (*d*) trading accounts, and (*e*) miscellaneous incomes. A casual inspection of the group will show the accounts thus sub-grouped.

All these accounts, both Capital and Revenue, will be given detailed explanation as we proceed. It is recommended by the United Typothetae of America that the arrangement of the Ledger accounts be similar to that illustrated in the classification of accounts given in the Demonstration Book. More or fewer accounts may, depending somewhat upon the size of the business, be found desirable, but the principle of properly distinguishing between Capital and Revenue will be the same, and it is that fundamental principle which is being emphasized in this Demonstration Set of the Standard Accounting System.

PART II—THE STANDARD ACCOUNTING SYSTEM

BOOKS OF ACCOUNT

Having had this preliminary treatment of *principles* we shall now discuss in detail the Books of Account and the Accessory Records making up the Standard Accounting System.

To understand these books and records it is necessary for the reader to follow closely the forms in the Demonstration Book as he reads this Treatise, for the explanation is based entirely upon the forms presented in the Demonstration Book. The forms will be discussed in the order in which they appear and a full explanation of their use will be made. As all of the books and records shown in the Demonstration Book are necessary to the Standard Accounting System, it will be necessary, to a certain extent, to refer to some of the other forms while each particular form is being discussed, but this will be done only in so far as it is necessary to make clear the explanation of each book or record. After discussing briefly the individual books and accessory records shown as parts of the Standard Accounting System, a month's transactions will be entered as in the ordinary course of business in order to show more clearly the relation of the various books and records as parts of the entire System.

CASH-JOURNAL AND PURCHASE REGISTER

(Form A, pages 10 to 14 inclusive)

The Cash-Journal and Purchase Register combines in one book the ordinary Cash Book, Purchase Book, and Journal. In brief, all transactions involving cash, the purchase of goods, or the payment of expenses, and all other transactions, except those affecting sales and the cost of sales, will be recorded in this book.

To the left of the Explanation or "Accounts" column (see page 10) will be found the columns in which all receipts and disbursements of cash will be entered. These columns are headed Cash "debit" and "credit," and serve every purpose served by the Cash Book form discussed previously. The columns headed "Bank" at the extreme left of the page are not a part of the bookkeeping system, at least in so far as debits and credits are concerned, and the amounts entered in these columns are not posted anywhere to the Ledger. In other words, these columns, which record the deposits made in the bank and the checks drawn on the bank, are included for convenience only, and enable the business to carry in the Book of Original Entry a memorandum record of the bank account. Therefore, as stated above, the two Cash columns are the only columns to the left of the book which comprise a part of the double entry system.

The Date column, Folio column, the Accounts column, and the Voucher Number column require no comment. Each serves a definite purpose in the bookkeeping system, and adds much to its efficiency as a whole.

The next columns, headed Accounts Receivable, "debit" and "credit" respectively, will contain all items affecting customers' accounts, other than the charges

for completed jobs which are entered from the Individual Job Summaries in the Sales Register. The Credit column will contain all payments received from customers, and the amount entered must be the total part of the customer's indebtedness which has been canceled by the payment. Thus, in the first customer's entry (page 10), Robinson Crusoe pays $338.10 of cash to the business, but with that amount of cash a $345.00 debt is paid in full; therefore the $345.00 must be entered in the credit Accounts Receivable column.

All the items entered in the Accounts Receivable columns, in accordance with the principles of the controlling account discussed previously, will be posted individually to the proper customers' accounts in the Sales Ledger, and, at the end of the month, the total of these columns, debit and credit respectively, will be posted to the Accounts Receivable account in the General Ledger. It is thus seen again that the controlling account in the General Ledger summarizes in total the postings, debit and credit, which are made during the period to the customer's account in the Sales Ledger.

The next column, headed "Sales Discounts and Allowances, debit," will contain all allowances and discounts on customers' accounts. This column is very largely a labor-saving device and will be posted in total at the end of the month to the debit of that account.

The columns headed Accounts Payable, "debit" and "credit," furnish the means of posting to the Creditors' accounts in the Purchase Ledger. In accordance with the rules of Debit and Credit discussed above, all credits or debits to Creditors' accounts will be entered in these columns, the amounts will be posted individually to the respective creditors' accounts in the Purchase Ledger, and at the end of the month, in accordance with the controlling account principle, the totals of the columns, debit and credit respectively, will be posted to the Accounts Payable account in the General Ledger.

The next column, entitled "Discounts on Purchases, credit," will contain all discounts taken by the business on creditors' bills. This again is a labor-saving device, and at the end of the month the total of the column will be posted to the credit of the account named.

The convenience of having the Sales Discounts and Allowances column and the Discounts on Purchases column, respectively, located near the Accounts Receivable columns and Accounts Payable columns, needs no comment. Little conveniences of this kind add greatly to the working efficiency of the System.

The next columns, entitled Factory Accounts, "debit" and "credit" respectively, will contain all items debited to the manufacturing accounts in the Factory Ledger. All credits, except those made from the Sales Register, will also be entered through these columns to the Ledger. The Factory Ledger, being a subsidiary ledger, is controlled, or summarized, by the Work in Process account (No. 6, page 25) in the General Ledger, and at the end of the month the totals of these columns, debit and credit respectively, will be posted to the Work in Process account in the General Ledger. Thus, again, the principle of the controlling account is illustrated by these special columns in the Book of Original Entry, and one account in the General Ledger summarizes in total the items posted in detail to a group of accounts in a subsidiary ledger.

The General Ledger columns are used for such items as can be entered nowhere else in the book of original entry. These columns taken in connection with the Date column, Folio column, and Accounts column comprise the simple two-column Journal first discussed, and even in the Cash-Journal and Purchase Register of the Standard Accounting System these columns have a very important use, as may be seen from a casual survey of the Demonstration Book.

The next group of columns, entitled Payroll, General and Office Expense, Shipping and Deliveries, and Selling Expense, respectively, again illustrate the labor-saving device. All amounts spent or all indebtedness incurred during the month on account of these expenses will be entered in these debit columns. At the end of the month the totals of these columns will be posted to the debit of the accounts named. In this way the bookkeeper is saved the task of posting individually all these items of expense, and the Ledger accounts are not burdened with a large number of detail items. This is especially desirable, since the one monthly item is of as much or of more value from the management's standpoint.

In designing a book of this kind it is usually desirable, as illustrated here, to leave one or more blank columns which may be used in any way that is found convenient. For instance, there may be so many items of carfare that it is desirable to segregate these from the General and Office Expense; the blank column permits of this, or some other kind of expense may be segregated in this column. It is very possible that an additional account might be added permanently to the Ledger group, when this extra column would be needed. In each case, of course, it would be necessary for the bookkeeper to write in the name of the account to which the items entered in this column were to be charged.

The next group of columns, headed "Material Debits," will contain all amounts of materials purchased during the period. At the end of the month these columns will be totaled and the amounts posted to the debit of the respective material accounts. The triple blue line appearing at this point in the Cash-Journal and Purchase Register marks the end of the General Ledger entries; in other words, the series of columns headed "Factory Ledger Debits" is not a part of the General Ledger system of entry, but is used only as a matter of convenience in distributing departmentally the amounts charged to the Work in Process account and which have been entered in the Factory Accounts debit column. However, it is not necessary that all amounts entered in the Factory Accounts debit column shall be distributed to the auxiliary columns. The items may be either distributed to the various departments through these "Factory Ledger Debits" columns or the departments may be debited individually in the controlling account columns (for such the Factory Accounts debit and credit columns are). Except for the monthly provision for Reserve for Overhead, no charges will be made usually during the month to the operating accounts except for direct materials and supplies. It is desirable to show in the subsidiary accounts the debit made to each for Reserve for Overhead, so the Factory Accounts are debited in detail at the beginning or close of the month for this charge, and the amounts are all entered in the Factory Accounts debit column. Then by distributing all the amounts of factory direct expense and supplies of the month to these auxiliary columns, the totals of the various columns may be entered on line eleven of the Cost Form 9–H (see pages 57 and 58) as the "Department Direct Supplies and Expense" monthly cost.

In accordance with our previous discussion, each transaction will have equal debits and credits. Therefore, before forwarding the Cash-Journal to the next page the book-

keeper should always see that the book is in balance. The totals of all the debit columns should be added together and must equal the sum of the totals of the credit columns. Thus, for page 10 of the Cash-Journal and Purchase Register, the debit and credit totals are as follows:

Debits	*Credits*
$1,305.85	$2,201.85
26.65	1,332.50
960.00	1,454.85
192.96	19.20
162.30	78.78
1,022.25	
59.62	
76.50	
1,240.60	
12.80	
19.80	
7.85	
$5,087.18	$5,087.18

If these totals add up to the same amount the bookkeeper may assume that his books are arithmetically correct, though this does not prove that the books are accountingly correct. In other words, the bookkeeper may have charged or credited the wrong account, which would mean that his books are incorrect from an accounting standpoint; but even if the amount were debited or credited to the wrong account, if it were placed in a debit or credit column, respectively, the books would be arithmetically in balance.

As was said above, the totals of the Factory Accounts debit columns are not included in making this proof of debits and credits. These columns, however, can be proved by comparing the sum of their totals with the arithmetical total of the items which have been distributed from the Factory Accounts debit column.

Much additional information concerning the Cash-Journal and Purchase Register will be brought out in recording the December transactions in the books (see Part III of this Treatise). Full explanation of detailed business entries will be given at that time. The general scheme and purpose of the book, however, has been explained, and the principle on which the book has been built is to get the most and best information possible with the least amount of bookkeeping labor. The possible criticism of waste space is negligible when compared with the amount of valuable information which the use of the book will produce for the management of the business.

SALES REGISTER

(Form B, pages 17 and 18)

The Sales Register records all sales made. It also records the cost of goods sold, and of goods going into manufactured stock. At the right of the form it provides for the distribution of sales between the different departments in proportion to the value of the work done.

The Sales Register will be found on pages 17 and 18, inclusive, of the Demonstration Book. To the left of the book, under "General Ledger Debits," will be entered the date the job was billed to the customer, the bill number, the job number, the name of the customer, the page of the customer's account in the Sales Ledger to which the amount was posted, and the amount of sale charged to the customer as recorded in the Accounts Receivable column. A General Ledger column is also provided in which will be entered the value at cost of work done for the office, the cost of manufactured stock and of spoiled work, and all other items except the charges to customers.

The items entered in the General Ledger column will, of course, be posted individually to the proper accounts in the General Ledger. The amounts in the Accounts Receivable column are posted, as stated above, to the individual accounts in the Sales Ledger, while the column will be posted in total at the end of the month as a debit to the Accounts Receivable account (No. 3, page 24) in the General Ledger.

It will be observed from the Sales Register (see page 17) that the sales are entered in the order in which the jobs are billed to customers, and not in the order of the individual job record numbers. For this reason the bill numbers should run consecutively, but there may be little relation in the order in which the job numbers appear in that column. Both job and bill numbers need not be used unless desired, though such would seem advisable, and both are illustrated in this Sales Register. Nothing is entered in this book until the goods are ready to be shipped, billed, or placed in stock.

Offsetting these amounts under "General Ledger Debits" are "the General Ledger Credits" (see page 17B). The amounts here are credited to the accounts designated. All regular sales will be entered in the Sales column, all special sales in the Special Sales column, and all sales of waste paper, dross metal, or "junk" of any kind sold by the business would be entered in the General Ledger column; the name of the account to be credited being written as designated. At the end of the period the special columns would be posted in total to the General Ledger to the accounts named, while the accounts named in the General Ledger column would be credited in detail. This posting of the columns under "General Ledger Debits" (page 17) and of the columns under "General Ledger Credits" (page 17B) makes a complete double entry, the offsetting debit and credit items being equal. In case two or more plants are operated, a corresponding "SALES" column for each plant would probably be carried under "General Ledger Credits."

SALES REGISTER—COST OF SALES

In the special columns under "Factory Ledger Credits" (pages 17 and 17A) the departmental and material costs of manufacturing will be recorded. The departmental costs, which are taken from the Individual Job Summary (see page 62), are average or set-up hour costs and are determined by the records of Cost Form 9–H.

The items of cost as summarized on the Individual Job Summary (observe the filled-in form on page 62) are entered in the Sales Register as the cost of that individual job. The "cost to post" items, as recorded on the Summary, are entered in the corresponding columns under "Factory Ledger Credits." The total cost of materials and departments for the job is entered in the Cost Completed Work Debit column under "General Ledger." To this Cost Completed Work is added the selling charge, which is here arbitrarily taken as 12½ per cent., and this selling expense is entered in the

Selling Charges Debit column. The total cost of the job, including the selling expense, is next entered in the Total Cost column (page 17B) under "Sundries." This total cost compared with the selling price of the job as entered in the Sales column under "General Ledger Credits," shows the gain or loss on the job. This amount of gain or loss is entered in the Loss or the Gain column under "Sundries." This simple method of entry is used for each job manufactured, it being remembered that no entries are made until the goods are ready to be shipped, billed, or placed in stock.

At the end of the month, or period, each of the columns under "Factory Ledger Credits" (pages 17 and 17A) is totaled, and these totals are posted to the credit of the respective accounts in the Factory Ledger. The total of the Cost Completed Work Debit column is posted to the credit of the Work in Process account in the General Ledger, this being the sum of the totals posted to the Factory accounts, and thus summarizing the transactions affecting these subsidiary accounts. This amount, which also represents the cost of sales for the month, is debited to the Trading account in the General Ledger. The total selling charges absorbed by the individual jobs, as shown by the Selling Charges Debit column, are debited to the Selling Charges account and credited to the Selling Expense. These postings to the General Ledger thus give two complete double entries, viz.:

Trading

To Work in Process

and

Selling Charges

To Selling Expense

The various columns, and the information contained therein, will be illustrated and explained more fully in the transactions entered in the books for the December month (see Part III of this Treatise).

The Sundries columns (page 17B) are not posted, but have a statistical value only. They are not necessary to the double entry system, but inasmuch as they show the loss or gain on each individual job they are valuable statistically and for administrative purposes. The net gain or loss, as shown by the difference between the totals of the Loss and the Gain columns, is the same, exclusive of discounts and allowances made on sales, and exclusive of the over-absorption or under-absorption of the selling expenses, as the net operating profit shown by the Monthly Income Statement (Form E-2, page 44).

SALES REGISTER—DISTRIBUTION OF SALES

In response to a demand among printers for a method of determining the gain or loss for each department of printing, the Distribution of Sales columns, as shown on the right of the Sales Register (pages 17B and 18), have been provided. These columns furnish, statistically, a means of determining the profits or losses accruing to the business from all materials used and from the operations of each department in the plant. These columns, which correspond to the special columns shown under "Factory Ledger Credits" of the Sales Register (see pages 17 and 17A), will show, when compared with

the costs recorded in these other columns, the net profit or loss arising in each department, provided that the distribution of selling price as between materials and departments has been made on an equitable basis.

In the same way in which the amounts placed in the "Factory Ledger Credits" special columns are obtained from the Cost to Post column of the Individual Job Summary (Cost Form 2, page 62), so the amounts placed in the Distribution of Sales columns are obtained from the Sell to Post column of the Individual Job Summaries of the period.

The amounts entered in the Sell to Post column make up the selling price of the job. This selling price for materials is determined by taking the actual cost price thereof (including freight and cartage inward) and adding a fixed percentage for profit. In the case of the operating departments, the price is determined by taking a fixed selling price per hour and multiplying this by the number of hours required or estimated to do the work in each department.

In case the selling price has not been quoted in advance to the customer, the actual number of hours required to do the work in each department would be multiplied by the fixed selling price per hour of the department and the amount carried into the Itemized Selling Price column or into the Sell to Post column; but if the price is quoted in advance, the amount entered in these columns will be determined by the number of hours estimated at the selling price to do the work. Therefore, the selling price may be determined either after the job is done or before the job is started. In the latter case, the number of hours sold must be an estimate and if it required a longer period of time to do the work than was estimated the department may show a loss on that part of the job.

In case the amount of time actually consumed in the production of a given piece of work varies more or less from a normal amount of time, the proprietor must use judgment in determining the selling price. This arbitrary determination of profit and loss for the departments, and which is illustrated on the Individual Job Summary for the first job entered in the Sales Register, holds true for all jobs and would be determined in the same manner as shown for this Job Summary.

The Stock Handling Expense must be added to the cost of materials used (see page 7 of the Demonstration Book, or Treatise on Standard Cost Finding System—Appendix C) and the profit determined on the total amount. For illustrative purposes this Stock Handling Expense has been figured at 12½ per cent. of the cost of the materials. On stock an arbitrary profit of 20 per cent. has been added on small amounts, and 10 per cent. on large amounts. As has been emphasized before, these figures are illustrative only of the principles involved, and are not to be taken as in any way determining the procedure of the individual business.

Selling Expense may have an arbitrary selling price entered for it, or, as illustrated on the Individual Job Summary (see page 62), it may be extended at cost.

In the same way in which the costs, as shown by the Cost to Post column in the Individual Job Summary, are carried to the "Factory Ledger Credit" columns in the Sales Register (pages 17 and 17A), so the selling prices are carried from the Sell to Post column to the "Distribution of Sales" columns (pages 17B and 18). The amounts shown in the "Distribution of Sales" columns will total the same as the several Sales columns under "General Ledger Credits" (page 17B). This sum of the individual distribution

may also be entered in the Total column at the extreme right of the Sales Register (page 18). Either this Total column or the sum of the "General Ledger Credits" columns will give a check on the arithmetical accuracy of the distribution.

A Sales Adjustment column is provided at the right of the "Distribution of Sales." In this column may be entered, if desired, such amounts as represent the difference between the actual billed price and the total of the amounts entered in the Sell to Post column of the Individual Job Summary. Thus, for the job sold to Silas Marner (see Individual Job Summary, page 62) the items entered in the Sell to Post column total $959.55. Usually the job would not be sold at this exact figure, but for some even amount, perhaps $960.00. As illustrated in the Sales Register (see page 18) the $.45 is entered in the Sales Adjustment column. The correct method, perhaps, is to re-distribute this difference over all the manufacturing departments on a percentage basis, which thus shows the actual selling price per department for this job; however, such differences, when placed in the Sales Adjustment column, show by how much the individual jobs have actually been sold above or below what the selling price should have been when using a fixed selling price per hour rate. In this way the Sales Adjustment column serves as a barometer to show the proprietor by how much he is receiving more or less than the fixed selling rates. As noted in the Sales Register, the amounts entered in the Sales Adjustment column in black figures show an extra profit over the regular selling rates. The red figures show by what amount the actual billed price is less than the regular selling rates, while the total of the column (the difference between the black and red figures) designates for the entire month the amount received for sales over or under the regular selling rates.

These "Distribution of Sales" amounts, being based on selling rates and thus made up of arbitrary figures, must not be posted to the General Ledger or to any other book. At the end of the monthly period the special columns under "Distribution of Sales" will be totaled and these totals will be transferred to the Summary of Sales for Year sheet (Form H, pages 48, 49, and 50) and placed in the Sales column for the proper month. This distribution gives, statistically, a means of comparing the cost of each department of printing with the recorded returns of that department for the period considered, but the value of this comparison will depend largely, or entirely, upon the degree of intelligence and judgment used in distributing the selling price between materials and departments—for what the customer buys is not several things (with an option of buying some and rejecting others), but one completed product.

SALES REGISTER—MANUFACTURED STOCK

The term Manufactured Stock, as here used, applies to goods manufactured in quantities, such as labels, blank forms, stock posters, etc., and placed in stock, from which sales are made from time to time, and upon which additional work, such as imprintings, may or may not be done. If a business manufactures and places goods in stock, the method of entering such Job Summaries in the Sales Register will vary somewhat from the method explained when the job is shipped or billed out to the customer, and will require more detailed bookkeeping—especially if an attempt is made to record profits by departments on work done on orders. Therefore, while it is necessary here to explain this briefly, the reader who does not have manufactured stock to deal with may well pass by this section, and eliminate mentally all the manufactured stock columns from the Sales Register as illustrated. Instead of being charged to a customer,

the completed job may be entered as Manufactured Stock in the General Ledger column under "General Ledger Debits" (page 17). The words "Manufactured Stock," or some similar description, will be written in the Explanation column and the price entered for the job will be *cost price* and not selling price. The amount will be checked (√) in the folio column, and will not be posted from this section of the Sales Register.

This cost, which will be taken from the Cost to Post column of the Individual Job Summary (the selling price columns will not be used for manufactured stock orders), will be distributed to the various material and departmental columns under "Factory Ledger Credits" in the same way in which any other Job Summary would be distributed. The total of the amount distributed, which is the total cost of the manufactured stock, will be placed in the Manufactured Stock Factory Cost Debit column, under "General Ledger." The total of this Manufactured Stock Factory Cost Debit column will be posted at the end of the month to the debit of the Manufactured Stock account (No. 5, page 24) and to the credit of the Work in Process account (No.6, page 25) in the General Ledger, and this gives all the desired results (namely, a debit to the Manufactured Stock account and a credit to the Work in Process account for the cost of the work done) so far as the General Ledger accounts are concerned. Likewise, the distribution of the cost of such jobs in the "Factory Ledger Credits" columns gives the detailed subsidiary accounts in the Factory Ledger credit for the work done.

In a printing business manufacturing stock goods these Job Summaries will be entered in the Sales Register with the Individual Job Summaries of customers, all jobs being entered in the order of their completion. The sum of the Manufactured Stock Factory Cost Debit column and the Cost Completed Work Debit column at the end of the period will equal the sum of the Factory Ledger Credits columns and will be the total credit to the Work in Process account for all orders which have been completed during the period and which either have been sold or have been placed in stock.

As this cost of manufactured stock has been distributed in the various material and departmental columns under "Factory Ledger Credits" as the goods were produced, it is also necessary, when attempt is made to get profits or losses for materials and by departments for the period, to show this *cost* of manufactured stock in the various material and departmental columns under "Distribution of Sales" (pages 17B and 18). Otherwise the cost columns would contain the distributions for more jobs than would be found in the "Distribution of Sales" columns, and this would mean that no adequate comparison could be made for profits and losses by departments. Therefore, all Manufactured Stock Individual Job Summaries, which have been entered in the Sales Register cost columns under "Factory Ledger Credits," are also carried at *cost* to the respective columns under "Distribution of Sales." A comparison then of the columns under "Factory Ledger Credits" and under "Distribution of Sales" will show the losses or gains on materials and operating departments *for the goods actually sold customers,* there being, of course, no profit or loss shown on the Manufactured Stock account, for that account represents goods in stock and unsold.

When the Manufactured Stock Summaries are carried to the "Distribution of Sales" columns, the total of the Individual Job Summary will be entered at cost (for there is no selling price figured on a job of this kind) in the Manufactured Stock Factory Sales column under "General Ledger Credits." The total of this column will be checked (√) at the end of the period. The result of the postings, so far as manufactured stock is concerned, has been to debit the Manufactured Stock account

for the cost of the manufactured stock and to credit the Work in Process account for the cost of the work done.

As may be seen from a careful inspection of the Sales Register in the Demonstration Book, it is necessary to enter the manufactured stock at cost price in the Manufactured Stock Factory Sales column in order to prove the arithmetical accuracy of the materials' and operating departments' columns under "Distribution of Sales"; otherwise there is no reason for entering this as a sale (at cost) until the manufactured stock is actually sold. By entering the amount of the manufactured stock job summary in the General Ledger column under "General Ledger Debits" (page 17) and also in the Manufactured Stock Factory Sales column under "General Ledger Credits" (page 17B) the sum of the totals of all columns under "General Ledger Debits" prove with the sum of the totals of all columns under "General Ledger Credits." The sum of the totals of the columns under "General Ledger Credits" prove, likewise, with the sum of all column totals under "Distribution of Sales" (pages 17B and 18), and the arithmetical accuracy of the book is assured. It is entirely feasible to use the amounts of manufactured stock entered in the "General Ledger Debits" and "General Ledger Credits" columns as statistical figures only, and not to carry them to the General Ledger. This method the bookkeeper should adopt in handling manufactured stock amounts.

Now if the process of entering the manufactured stock Individual Job Summaries in the Sales Register, and if the reason for entering the cost figures in the several columns both under "Factory Ledger Credits" and under "Distribution of Sales" is thoroughly understood, the bookkeeper should have no trouble in posting the manufactured stock item only from the Manufactured Stock Factory Cost Debit column appearing under "General Ledger" (page 17A), and to use the other amounts as means only of proving the arithmetical accuracy of the cost and of the sales distribution columns.

The amount of the Manufactured Stock Summaries should also be entered *at cost* in the Total column at the extreme right of the Sales Register (page 18). The Distribution of Sales columns may be proved by finding the sum of the totals of the distribution columns and comparing that amount with the sum of the Total column at the extreme right of the form.

When the manufactured stock is taken from the shelves and sold direct, or goes to the factory for more work to be done thereon, it will, when billed to customers, be entered at the sale price in the Accounts Receivable column under "General Ledger Debits" (page 17). The cost of the *additional work done* will be credited to the departments under "Factory Ledger Credits" (pages 17 and 17A), while the *total cost* of the *additional* work will be entered in the Cost Completed Work Debit column (page 17A), where it becomes a debit to the Trading account (No. 38, page 31) and a credit to the Work in Process account (No. 6, page 25). Then on page 17B, in the General Ledger column under "General Ledger Credits" an entry will be made debiting Trading account and crediting Manufactured Stock for the *cost* of the manufactured stock used for this order. The total selling price will be credited to Sales account in the Sales column (page 17B) under "General Ledger Credits." The manufactured stock portion of the completed order should be sold at a profit, and the *profit* on this manufactured stock used will be entered in the Manufactured Stock column (the column at the extreme left, under "Distribution of Sales," page 17B), *but the cost of the manufactured stock should*

not be distributed a second time to the "Distribution of Sales" columns, as the cost price thereof was distributed when the Manufactured Stock Job Summary was first entered in the Sales Register.

The *additional work done* on the stock will be credited to the various Operating Departments (under "Distribution of Sales") at the selling rates. The "Distribution of Sales" columns may now be proved by taking the total of the Sales column, plus the total of the Manufactured Stock Factory Sales column, plus the total of the Special Sales column, plus any sales in the General Ledger column (all under "General Ledger Credits," page 17B) minus all credits *at cost* to manufactured stock entered in the General Ledger column. The credits at cost to manufactured stock have to be deducted from the total of the various Sales columns, because the manufactured stock is included in the amount of the sale made, but this same manufactured stock is *not* included in the Distribution of Sales columns (having been included in the distribution columns when the manufactured stock was produced). This will give the same result as will be obtained by finding the sum of the totals of the "Distribution of Sales" columns. While this method of proving seems quite complicated if read from the Treatise alone, it will be found comparatively simple if the reader will refer at the same time to the "General Ledger Credits" and "Distribution of Sales" columns in the Sales Register. The use of the Total column at the extreme right (page 18) of the Sales Register, as stated before, will be of assistance in proving the arithmetical accuracy of the "Distribution of Sales" columns. The portion of such sale, in which manufactured stock is used, to be entered in the "Total" column is the total sale less the cost of the manufactured stock used (which has been distributed previously).

THE TRIAL BALANCE

(Form D, page 20 and page 40)

The Trial Balance, as the name implies, is a statement of the Ledger accounts in double entry bookkeeping to ascertain if the total debits and total credits, as posted to the Ledger, are equal. In other words, it is to prove the accuracy of the posting, and determines whether the debits and credits as previously entered in the Books of Original Entry have been carried to the proper side of the Ledger accounts.

The Trial Balance should be prepared after the books of the business have been posted but before the closing entries have been made and will show in parallel money columns either the total debit and credit of each Ledger account, or the difference between the debit side and the credit side of each account. If the first method is employed it is called a Trial Balance of "Totals," while if the latter form is used the Trial Balance is one of "Differences."

As has just been said, the Trial Balance proves that the items in the Books of Original Entry have been carried to the correct side of the Ledger accounts; that is, that the debits and credits are *arithmetically* correct. But the Trial Balance does *not* prove that the amounts entered in the Books of Original Entry have been posted to the proper Ledger account, or that the proper accounts were debited or credited in the beginning —in other words, the Trial Balance does not prove that the books are *accountingly* correct. However, the bookkeeper usually assumes that his Ledger is correct if the "Trial Balance proves."

On page 20 of the Demonstration Book will be found a Trial Balance for the beginning of the month for which the illustrative transactions are entered in the books and records of the Standard Accounting System; this is a Trial Balance of differences. Thus, in the Cash account only the debit balance is shown, while in a Trial Balance of "totals" the total of the debit side and the total of the credit side of the Ledger account would be given. It is usually considered preferable to take a Trial Balance of "differences," for it is the net result of business transactions on any account in which the proprietor is usually interested. On page 40 of the Demonstration Book will be found the Trial Balance at the end of the month for which these illustrative transactions were entered in the books. This again is a Trial Balance of differences and reference to any of the Ledger accounts named therein will readily show what the difference would be between taking a Trial Balance of differences and a Trial Balance of totals. In this later Trial Balance many of the operating accounts have not yet been closed into the Loss and Gain account.

While a Trial Balance should be taken at each monthly closing period in order to prove the arithmetical accuracy of the books before making up the Income Statement or Balance Sheet, *the bookkeeper must remember that the Trial Balance does not prove the accounting accuracy of his books.* Suppose, for instance, that the Cash account had been debited for $1,000.00 when the debit should have been made to the Accounts Receivable account, or to the Work in Process account. Is there anything in the Trial Balance on page 40 which would reveal that the wrong account had been debited for the $1,000.00 item? Thus, while no one doubts the usefulness of the Trial Balance, bookkeepers must be educated away from the idea that a Trial Balance which balances is absolute proof that their books are accountingly correct.

ABSTRACTS OF SUBSIDIARY LEDGERS

(Form D–1, page 21 and page 41)

The principle of the Controlling account has already been discussed. It was stated there that the balance of the Controlling account, at the end of the month or period under consideration, must equal the sum of the balances of the accounts in the Subsidiary Ledger which it controls. That is, the balance of the Accounts Receivable account must equal the sum of the balances of the customers' accounts in the Sales Ledger. The same is true in regard to the Accounts Payable and Work in Process accounts in their relation to the Purchase Ledger and Factory Ledger, respectively. In order to be certain that such is the case it is usual to prepare at the end of the month what is commonly called in bookkeeping an Abstract of the Subsidiary Ledger. This Abstract is nothing more or less than a list of the Subsidiary Ledger accounts' balances and it shows the total of those balances to be in agreement with the controlling account balance in the General Ledger. Thus, on page 21 of the Demonstration Book there will be found the Abstracts of the Subsidiary Ledgers at the beginning of the month for which the illustrative transactions are entered in the books. In each case, it will be observed, the total of the Subsidiary Ledger Abstract agrees with the balance of the respective controlling account as shown in the Trial Balance (and in the General Ledger as well) on the previous page.

These Abstracts are often, or usually, attached to the periodic Balance Sheet as supporting schedules, for they enable the proprietor to see at a glance that the amount

of the controlling account appearing in the Balance Sheet agrees with the sum of the detailed accounts appearing in the Subsidiary Ledger.

These Abstracts are also desirable because they show in detail the amounts due from various customers, the amounts owed various creditors, and the amount of work in process in each of the various departments of the plant.

On page 41 will be found the Abstracts of Subsidiary Ledgers at the close of the month. These again agree with the balances of the controlling accounts appearing in the Trial Balance as of December 31st (page 40). They also agree with the balance of the controlling accounts shown on the Balance Sheet (page 45) and, as stated above, furnish a valuable supporting exhibit to these controlling accounts on the Statement of Financial Condition.

While not necessary to any bookkeeping system, such schedules, or abstracts, are found most valuable and should always be prepared. It is strongly recommended by the United Typothetae of America that all businesses using the Standard Accounting System should prepare these supporting schedules or abstracts for the controlling accounts appearing in their General Ledger.

GENERAL LEDGER

(Form C, pages 24 to 31 inclusive)

The General Ledger is the most important single book in any accounting system. It is rightly called the "summary book of the business" for it shows the total assets, liabilities, proprietorship, incomes, and expenditures, and, if subsidiary ledgers are not used, the accounts, which ordinarily are not carried in the General Ledger, are shown in much detail. Therefore, it is necessary to understand thoroughly the meaning and the use of each account as illustrated in the Ledger of the Standard Accounting System.

On page 23 is an index of the four ledgers recommended by this accounting system. It is recommended that all ledger accounts, both of the main and of the subsidiary ledgers, be indexed carefully and thoroughly, for it is desirable to be able quickly to locate any account.

Each ledger account will now be explained in detail. If the meaning and use of these accounts are thoroughly understood, any printer's bookkeeper should have little or no trouble in the operation of the system.

CASH (BANK)

(Account No. 1, page 24)

The balance of this account at the beginning of the month agrees with the balance shown on the opening Trial Balance (Form D, page 20). This amount is also listed in the Deposits column of the Cash-Journal and Purchase Register (page 10), and represents the balance of the bank cash carried over from the last month, or period.

The account will be debited for all receipts of cash for the month as posted from the Cash debit column of the Cash-Journal (see page 14), and will be credited for all disbursements for the month as shown by the Cash credit column of the Cash-Journal (see page 14).

The balance of the account at the end of the month should be proved with the amount of cash reported by the bank, by deducting from that amount the outstanding checks at the end of the period and adding the undeposited checks in the cash drawer. The amount will also appear in the closing Trial Balance of the month (page 40), and in the Balance Sheet as of December 31st (page 45). This closing balance will also be recorded in the Bank Deposit column in the Cash-Journal and Purchase Register at the beginning of the new period.

The best business practice requires all cash received to be deposited and all disbursements from the main Cash account to be made by check. If this policy is adopted and strictly adhered to, the Cash account in the Ledger will always be in agreement with the Bank columns at the extreme left of the Cash-Journal and Purchase Register. The accounts should be balanced monthly, as illustrated, and the balance carried forward as the starting-point for the new month.

CASH (PETTY)

(Account No. 2, page 24)

As just said above, under no consideration should money entered on the Cash Book be paid out except by check. It is obvious, however, that there will be many small items of office expense, such as postage, carfare, express, and possibly some freight items which could not well be paid by check; therefore, the method ordinarily used is to provide what is known as a Petty Cash Fund.

A regular check, made payable to Petty Cash, is drawn on the bank account. The amount will be entered in the Cash-Journal, being credited to "Cash" and charged to the Petty Cash account in the General Ledger column, while the check will be cashed at the bank and the amount placed in the cash drawer for office use. This amount is no longer considered as a part of the general Cash balance and is not taken into account in agreeing the general Cash account with the bank balance at the end of the period.

As small items of expense now occur which cannot well be paid by check, they are paid from the Petty Cash. Signed receipts or vouchers are taken from those receiving the money. At the end of the month, or at any time during the month, the cash in the petty cash drawer, plus the sum of the signed receipts or vouchers, must equal the original amount placed in, and charged to, the Petty Cash fund. At the end of the period, or at other convenient times, a regular voucher may be made out for the sum of these receipts and entered in the Cash-Journal (see sixth entry, page 11; also fourth entry from bottom, page 12). The various expenses are debited in the proper Distribution columns and "Cash" is credited in the Cash credit column for the exact amount spent, thus replenishing the fund. When the check thus drawn on the general Bank account is cashed and the money placed in the petty cash drawer the petty cash fund will have again the original amount charged to it. No change has taken place in the Petty Cash account in the Ledger, that figure remaining stationary after the first entry

has been made in the General Ledger, except as the maximum cash drawer fund is actually increased or decreased from time to time.

It is not necessary that this account be kept, or that a petty cash fund be used in connection with the Standard Accounting System. However, it is the usual experience that some such fund is necessary in carrying on any business, and it is recommended that this method of handling the Petty Cash, known as the Imprest system, be used in connection with the Standard Accounting System.

ACCOUNTS RECEIVABLE (SALES LEDGER)

(Account No. 3, page 24)

The Accounts Receivable account is the controlling account for the Sales Ledger. The balance of the account at the beginning of the period is the sum of the balances of customers' accounts carried over from the old month. The account will be debited during the month for the sum of all charges made to customers' accounts. These debits will be posted from the Accounts Receivable column in the Sales Register (page 17) or from the Accounts Receivable Debit column in the Cash-Journal.

As customers pay their accounts the payments are entered in the Cash-Journal and are credited to the proper customer in the Accounts Receivable credit column. The total of this column is posted at the end of the month to the credit of the Accounts Receivable account in the General Ledger.

As the items making up these total debits and credits, respectively, have been posted to the various customers' accounts in the Sales Ledger, it is obvious that the General Ledger account controls or summarizes the accounts in the subsidiary ledger. The balance of the account at the end of the month, which is an asset of the business, and which summarizes the closing balances of the accounts in the Sales Ledger, will be found on the Balance Sheet (page 45) and should be supported by a schedule of the Sales Ledger (as shown on page 41).

NOTES RECEIVABLE

(Account No. 4, page 24)

This asset account will show as a balance at the beginning of the month the face value of all notes held against others. In regard to Notes Receivable (and to Notes Payable as well) the bookkeeper must always bear in mind that the amounts either of debit or of credit must be entered at the face value of the notes. All additions thereto in the form of interest, or all discount deductions therefrom must be recorded in special accounts. This account will be debited and credited through the General Ledger columns in the Cash-Journal. The balance of the account at the end of the month, again representing an asset of the business, will be shown on the Balance Sheet among the current assets (see page 45). In case notes are discounted they should be credited to a Notes Discounted account, for discounted notes are a contingent liability to the business. The Notes Discounted account will be debited and the Notes Receivable account credited when the paper is taken up by the maker.

MANUFACTURED STOCK

(Account No. 5, page 24)

This asset account will show a debit balance at the beginning of the month which is equal to the cost price of all manufactured stock in the possession of the business. As stock is manufactured and put on the shelves it will be charged at the cost price to the Manufactured Stock account, and, as explained in the discussion of the Sales Register (see page 30 of Treatise), the account will be credited at cost for all stock sold. The balance of the account, which will be carried as an asset on the Balance Sheet, would be the book value of stock on hand.

WORK IN PROCESS (FACTORY LEDGER)

(Account No. 6, page 25)

This account is the Controlling account for the Factory Ledger. The balance at the beginning of the month is an asset of the business, and, as shown by the abstract of the Factory Ledger (page 21), is the sum of all the balances shown by the factory accounts as of that date. The account is debited for the sum of all debits made to the factory accounts, the amount being posted at the end of the monthly period from the Factory Accounts debit column in the Cash-Journal and Purchase Register (see page 14). This debit for the month represents the cost of materials used, the labor cost for the period, and the cost of all the fixed and variable charges. In addition, the amount includes the total of all adjustment entries made.

These adjustment entries will now be explained. Reference to the Cash-Journal will show that during the month certain charges are made to the General Factory Expense account (No. 45, page 33). These charges are entered for the most part in the General Factory Expense column, under "Factory Ledger Debits." In addition, the payroll charge of $200.00 for Superintendent is made (see second entry, page 13) through the Factory Accounts debit column direct to the General Factory Expense account. All amounts, therefore, which are debited to the General Factory Expense account have already been included as a debit to the Work in Process account because these amounts have been included in the items entered in the Factory Accounts debit column. This amount, then, of general factory expense has already been included in the Work in Process account, and need not go through the account again, but, to save making a special case of this entry and special provision for its distribution, it is easier to carry the amounts through the Work in Process account again, both debit and credit.

To express it differently, the General Factory Expense account must be credited in order to close the account, and if the controlling account is to summarize the transaction, the controlling account must also be credited; and that is what is done. But as the General Factory Expense is distributed over the other plant departments and they are debited for their proportionate share of this overhead cost, the controlling account, if it is to summarize the transactions of the Subsidiary Ledger, must also be debited through the special Cash-Journal column. This means that the Work in Process ac-

count is debited a second time for this amount, and, to that extent, is debited and credited for more than the actual cost of materials, labor, and indirect expenses.

To make the point more concrete, and to prove that this is arithmetically true, observe the figures entered in the Ledger account. The total charges to the Work in Process account aggregate $7,335.92. Deduct from this amount the General Factory expense, $231.20. This leaves a balance of $7,104.72, which is the actual cost of operating the plant (including stock) for the month. Now, taking into account the Work in Process at the opening and closing of the month, or, in other words, adding the opening Work in Process ($1,355.50) and deducting the closing Work in Process ($1,768.33), a balance of $6,691.89 remains. If from this amount is now deducted the Reserve for Overhead credit adjustment for the month ($147.90) the Cost of Completed Work for the month ($6,543.99) is obtained. This agrees with the total of the Cost of Completed Work Debit column (page 17A) of the Sales Register, which total is posted to the credit of the Work in Process account. This arithmetical computation is given simply to show that the general factory expense has been included a second time as a charge to the Work in Process account and that this adjustment is made by means of an additional debit and an additional credit to the Work in Process account, the adjusting entry being made through the Cash-Journal and Purchase Register.

The Work in Process account is credited for the cost of completed work for the month as shown by the Sales Register. It is also credited, as explained above, for the general factory expense adjustment; also, for the Reserve for Overhead, in case this adjustment is necessary because of a too low used hour rate for some of the factory departments, and therefore it appears on the credit side of the account. The balance of the account represents the actual inventory value at the set-up hour cost of the incompleted jobs in the plant. It equals the sum of the Factory Ledger balances as shown by the abstract of the Factory Ledger (page 41). This Work in Process is an asset of the business and appears on the balance sheet (page 45) among the current assets.*

PAPER

(Account No. 7, page 25)

The debit balance of this account at the beginning of the month represents the cost value of the paper on hand. The account is debited for the cost of all paper purchased during the month, this amount being recorded in the special column in the Cash-Journal and Purchase Register (see page 14). It is recommended that the printer add to the purchase price of paper, and of all other merchandise materials, the incoming freight charges thereon. The account is credited for the cost price of paper requisitioned for manufacturing purposes, this amount being posted from the Cash-Journal and Purchase Register (see first entry, page 13). The account would be credited also at cost price for any paper returned to the jobber or manufacturer from whom it was purchased, and that creditor's account in the Purchase Ledger (also the Accounts Payable account, No. 12, page 26, in the General Ledger) would be debited. Likewise the Paper account would be debited at cost price for any paper returned to stores from the manufacturing departments; the Paper Direct account (No. 41, page 32), and also the Work in Process account (No. 6, page 25), would be credited for the paper returned.

* Where desired, a reserve account may be set up on the books at the end of the fiscal period to off-set the interest on plant investment included in the closing inventory of work in process and of manufactured (or finished) stock.

Oftentimes paper is purchased for a definite job and is charged directly to that job, the purchase never passing through the Paper account. It is essential, however, that all paper bought should be charged first to the Paper account, for if this account is to be used for inventory purposes, and if it is to be of statistical value in showing the proprietor the total amount of paper purchased for the whole year, it must show the total paper purchases of the period.

The balance, at the end of the month, represents the inventory value of the paper in stores. This is an asset of the business and appears on the Balance Sheet (page 45) among the current assets. The book figure for paper stock should be proved or tested from time to time by an actual physical inventory of paper on hand. It will usually be found that, in spite of all possible care, small discrepancies will arise between the actual cost and the book figure for paper on hand. These errors should be corrected without delay; the Paper account be written up or written down, as occasion may demand, and an off-setting credit or debit be made to the Paper Direct or to the General Factory Expense account. If desired, the correction may first be made to an "Over and Short" account, which in turn will be closed to either of the above accounts.

INK

(Account No. 8, page 25)

This account is handled in the same way as the Paper account. The balance is carried forward from the past period to the new month; the account is debited from the Cash-Journal (see page 14) for the purchases of the month and is credited through the Journal for the cost of ink requisitioned for manufacturing. The balance represents the inventory carried forward to the next period, and is shown as a current asset on the Balance Sheet (page 45).

BINDERY MATERIALS

(Account No. 9, page 25)

and

MISCELLANEOUS PURCHASES

(Account No. 10, page 25)

These accounts are debited and credited in the same manner as the Paper and Ink accounts. In the case of a bindery it will be found desirable usually to make a department direct charge for bindery materials.

MACHINERY AND EQUIPMENT

(Account No. 11, page 26)

The debit balance to this account at the beginning of the period should represent the cost value of machinery and equipment on hand. The account will be debited for

additions at cost price, plus the cost of installing the equipment, and the amount will be posted from the General Ledger columns of the Cash-Journal and Purchase Register.

The machinery and equipment is shown on the Balance Sheet (page 45) as a fixed asset, though it is obvious that it is continually losing in value and efficiency through wear and obsolescence. However, this loss is not recorded on the Balance Sheet in the Machinery and Equipment account, but in the Allowance for Depreciation account (No. 21, page 28). It will be observed that the cost price of the machinery and equipment is short extended and the amount of depreciation, as shown by the Allowance for Depreciation account, is deducted therefrom. The machinery and equipment is thus shown at its net value on the Balance Sheet of the business.

When any of the machinery or equipment is sold or scrapped this account will be credited for the cost price (plus cost of installation) of the machines scrapped or sold; the Cash (Bank) account will be debited for the amount received for the old equipment and the Allowance for Depreciation account will be debited for the total loss through depreciation on the asset discarded. In other words, the difference between the first cost and the scrap value of the asset becomes a charge against the Allowance for Depreciation account. If cash was received for the residual value of the asset the entry to record this in the Cash-Journal and Purchase Register would be

Cash (Bank)
Allowance for Depreciation
To Machinery and Equipment

If the asset were not sold for its written-down or depreciated value, the difference between the cash received and the depreciated value of the property should be charged directly to the Surplus account (No. 16, page 27). This supposes, of course, that the Allowance for Depreciation has underprovided for wear and tear and obsolescence occurring on the equipment. Theoretically, it is immaterial whether this additional loss was on account of unforeseen obsolescence or whether the life of the asset had been misjudged, and the equipment had been discarded in a shorter time than originally had been expected—this replacement coming directly as a result of wear and tear, and not of obsolescence. The depreciation rates recommended by the United Typothetae of America, being intended to cover both depreciation and obsolescence, make possible the use of the one entry given above. For practical purposes, as said above, the difference between the first cost and the scrap value is charged to the Allowance for Depreciation account. The balance of the account should always represent the cost price of the machinery and equipment in use in the plant.

ACCOUNTS PAYABLE (PURCHASE LEDGER)

(Account No. 12, page 26)

The Accounts Payable account is the Controlling account for the Purchase Ledger. The balance, which represents a liability of the business, is the sum of the balances owed creditors as reflected by the individual accounts in the Purchase Ledger. The account will be debited and credited, respectively, for the total of the Accounts Payable debit and credit columns in the Cash-Journal and Purchase Register. These

totals will be posted at the end of the month, or period, while the individual items making up these totals will be posted as debits and credits, respectively, to the proper Creditors' accounts in the Purchase Ledger. The balance of the account represents the sum of the amounts owed creditors, as shown by the Abstract of the Purchase Ledger (page 41), and this balance is shown on the Balance Sheet (page 45) as a current liability. The Ledger balance is carried forward as a liability to the next period.

NOTES PAYABLE

(Account No. 13, page 26)

This account represents a liability of the business, and any balance shown in the account at the end of the period will appear as a current liability on the Balance Sheet. As stated above under Notes Receivable, all notes must be entered at face value. Notes Payable represent obligations of the business itself, in other words, negotiable paper, or other written promises, which the firm is to pay.

This account will be debited and credited, respectively, through the General Ledger columns of the Cash-Journal and Purchase Register. The balance of the account represents the firm's notes outstanding and unpaid, and will be carried forward as a liability to the next period.

WAGES

(Account No. 14, page 26)

A balance occurring in this account at the beginning of the period may represent either of two things:

(*a*) A debit balance would mean wages prepaid, or, in other words, that in the previous month certain employees had received wages which were not due until the following period; while

(*b*) A credit balance represents wages accrued, or wages owed, at the end of the previous period and which have not yet been paid.

It is more probable that the account will show a credit balance at the end of the month than that it will show an over-payment of wages as a debit to the account. Therefore, the account is here grouped among the Liabilities, for it will usually record a liability even more real than that shown by Accounts Payable.

The account is credited for the wages earned during the month or period, and the amount will be posted through the General Ledger column of the Cash-Journal and Purchase Register (see second entry, page 13), while the account will be debited, weekly, or periodically, as the wages are paid, in the special Payroll column.

The balance of the account at the end of the period, if such there be, will usually represent wages unpaid (credit balance), and will be carried forward as a liability to the next period. In the Balance Sheet any such amount will appear among the current liabilities of the business.

CAPITAL STOCK

(Account No. 15, page 26)

This account represents the par value, usually, of the original investment in the business. It may be either the *original* investment, as it probably will be in the case of a corporation, or a similar account may represent the *present worth* of a partnership or of a single proprietor. Even in the case of a corporation, the account will represent *original* investment *only* if no additional capital stock has been issued since the organization of the company, or if the capital stock was paid in at the time of its issue to the net amount now appearing in the Capital Stock account and in the Stock Discount account, if any, on the books.

In the case of a partnership, there are usually as many accounts as there are partners. This means there is a proprietary account for each partner, so the present worth of the business would be represented by the sum of the partners' balances.

As illustrated on the Balance Sheet (page 45), the proprietorship in the case of a corporation will usually be represented by the Capital Stock account and by the Surplus account, and, perhaps, by a Loss and Gain account as well. Therefore, in this case, the sum of these accounts represents the present worth, or proprietorship, of the business.

It is generally undesirable, and somewhat difficult by law, to change periodically the amount of the capital investment of a corporation as shown by the Capital Stock account. Therefore, whatever earnings may accrue to the business, or whatever losses may be suffered by the business, the amounts will be shown in separate accounts. This is not necessary in the case of a partnership, or single proprietor, but it is sometimes desirable. In the case of a partnership or single proprietor, the policy of each business will determine whether two or more special accounts representing *in total* the present net worth of the business will be kept, or whether the total "present net worth" will be shown in the one or more proprietors' accounts.

Any change in the Capital Stock account, either to increase it or decrease it, would be made through the General Ledger columns of the Cash-Journal and Purchase Register. It is not often, however, that any change will be made in this particular account.

On the Balance Sheet, as illustrated, the Capital Stock helps to explain the excess of Assets over Liabilities, which excess represents the real proprietorship of the business.

SURPLUS

(Account No. 16, page 27)

The Surplus account represents the past earnings of the business not distributed as dividends and not specifically reserved for some definite purpose. As has just been explained, this account probably will not be found on the books of a single proprietor, or of a partnership, but usually will be found on the books of a corporation. It is subject to distribution to the stockholders at the will of the Board of Directors, but, until distributed, represents a part of the proprietorship and of the working capital of the business.

Additional amounts will be transferred to this account from the Loss and Gain account at the close of the fiscal period, the balance being increased or decreased in accordance with whether the amount transferred be a profit or a loss. If it is desired to make the Surplus a part of the permanent investment of the business, it may, perhaps, be desirable, when the surplus shall have reached a sufficient amount, to distribute it as a stock dividend. In case a stock dividend should be declared the Capital Stock account would be credited and the Surplus account would be debited, through the General Ledger columns of the Cash-Journal and Purchase Register, for the amount of the stock dividend declared.

On the Balance Sheet, the balance of the Surplus account is included with the Capital Stock to explain the excess of assets over liabilities. As stated before, this excess of assets over liabilities is the proprietorship of the business.

LOSS AND GAIN

(Account No. 17, page 27)

The Loss and Gain account represents the current losses and gains arising from the conduct of the business, and acts as a clearing account for the profits and losses of the period. At the end of the month the individual gains and losses should be closed into this account by means of Journal entries (see closing entries, page 14).

The too common method of closing profits and losses into this account by red ink entries on the Ledger should not be used, for original entries should be made only in books of original entry. After all the revenue accounts of the year have been closed out on the Ledger, the balance in the Loss and Gain account will represent the net earnings, or net loss, of the year. In case dividends are declared during the year they should be charged against this account, for it is always desirable to show whether the earnings of the particular period are sufficient for the dividends declared. While it is common practice to charge dividends directly to the Surplus account, the method here recommended shows the business executive more conclusively and more clearly the present earning power of his business. The balance of the Loss and Gain account should be closed at the end of the fiscal period into the Surplus account.

In the illustrated set the balance of the Loss and Gain account has not been closed into Surplus, for it is assumed that in all probability there are still dividends to be declared before this closing entry should be made.

On the Balance Sheet (see page 45) the Loss and Gain is included with the Capital Stock and Surplus to show the present worth of the business. In other words, the sum of these three accounts represents the *excess of assets over liabilities* and this, as we have explained previously in this Treatise, *is the true proprietorship of any business.*

INSURANCE (PREPAID)

(Account No. 18, page 27)

The debit balance of this account at the beginning of the period represents the unexpired premium value of the insurance policies held. The account is debited for the

premium cost of new insurance taken out and is credited each month for the proportion of the premium value expiring. The expired amount is charged to the General Ledger accounts and to the Department accounts in the Factory Ledger in proportion to the investment in each of the departments of the business.

The method of distributing this monthly expired portion of the premium is illustrated on the Schedule of Fixed Charges for the month (page 55). All entries affecting the Insurance account will be made through the Cash-Journal and Purchase Register, and all entries, except those affecting the departmental factory accounts, will be made through the General Ledger columns.

The balance of the account represents the present unexpired premium value of policies held and appears as a deferred asset in the Balance Sheet of the business.

LIABILITY FOR TAXES

(Account No. 19, page 27)

The balance of the Taxes account may either represent taxes prepaid, in which case the balance would be a debit, or it may represent taxes accrued, in which case the balance would be a credit. Each month the account will be credited for the month's proportion of the annual taxes expense. The offsetting accounts affected, as shown by the Schedule of Fixed Charges (page 55), will be debited for their proportional share.

The account will be debited for all payments of taxes. The entries will be made, either when the Taxes are debited or credited, through the General Ledger columns of the Cash-Journal. The balance of the account may represent either a deferred asset, or an accrued liability, and will appear on the Balance Sheet under the proper group.

For cost purposes it is desirable to distribute the taxes expense of the year monthly in equal amounts to the manufacturing accounts. This means that an estimate must be made at the beginning of the year as to the year's total expense, and then one-twelfth of this amount must be charged monthly to the manufacturing accounts and credited to the Liability for Taxes account. Except in a small business, it will be well to carry separate accounts for property taxes and for Income and Excess Profits taxes.

In case the estimate was exactly correct, the account will balance at the end of the year, for the payment of taxes will offset the monthly provisions made for their payment. However, the usual experience is that the account will not exactly balance at the end of the year; whatever balance the account may show at the close of the fiscal period should be closed into the Loss and Gain account. In the illustration used in the Demonstration Book, the balance at the end of the period was $31.07 which was closed out on December 31st to the Loss and Gain account (see last entry, Cash-Journal, page 14).

ALLOWANCE FOR BAD DEBTS

(Account No. 20, page 27)

The Allowance for Bad Debts is a "shock absorber" which anticipates losses from failure to collect customers' accounts. Experience in any business has shown that

losses are continually arising from customers' accounts; therefore, it is part of the system to establish an allowance, or reserve (as it is commonly called), sufficient to care for these bad debts.

Inasmuch as monthly statements of profit and loss are prepared, it is desirable to apportion as nearly as possible the year's provision for losses from bad debts over the monthly periods. In case of losses, the amount of loss will be charged directly to the Allowance for Bad Debts account, and will be credited to the customer's account in the Sales Ledger and to the Accounts Receivable account (No. 3, page 24) in the General Ledger. The Allowance for Bad Debts will be debited and credited through the General Ledger columns in the Cash-Journal and Purchase Register, and any balance remaining in the account is carried forward to the next period.

On the Balance Sheet (page 45) the Allowance for Bad Debts is not shown as a liability but is deducted from the Accounts Receivable to show the actual expected value of customers' accounts. At the end of the fiscal period any excess in the account may be closed out to Loss and Gain, or any deficiency may be made up from that account. In any case, the judgment of the proprietor must determine the provision necessary to care for the trade losses.

ALLOWANCE FOR DEPRECIATION

(Account No. 21, page 28)

The Allowance for Depreciation *measures the estimated loss in value and efficiency of the assets* (here the machinery and equipment) for which the account is set up on the books. The account is placed on the books by debiting the depreciation loss to cost of manufacturing and crediting the Allowance for Depreciation account. This entry will be made in the General Ledger columns of the Cash-Journal (Form A).

It must be remembered that, since fixed assets will wear out, and since depreciation measures approximately that loss occurring from year to year, *depreciation is as much an actual cost of doing business as any other cost,* and must be cared for properly and included with all other costs of manufacturing.

The depreciation loss of the year is usually computed by taking a fixed percentage, determined by the life of the asset, on the original cost of the machinery and equipment, as recorded in that account. This annual cost will be distributed over the twelve monthly periods and will be charged to the respective departments in accordance with the estimated loss occurring in each of those departments, and as shown by the Schedule of Fixed Charges (see pages 54 and 55) of the month. Therefore, the Allowance for Depreciation account is credited for an amount supposed to measure the proportionate loss in value and efficiency of the plant during that month, and this amount is permitted to accumulate until such time as specific assets included in the plant and machinery account are worn out and have to be discarded.* At that time, as explained under the Machinery and Equipment account, the cost value of the asset, minus its scrap or residual value, is charged against the Allowance for Depreciation account. It is thus obvious that the account will not continue indefinitely

* If desired, separate Allowance for Depreciation accounts may be carried for machinery and fixtures, for type, and for metal. The metal depreciation, which is shown as a fixed charge in the Demonstration Book, is subject to variation, dependent upon the number of times melted. If buildings are owned, an Allowance for Depreciation for Buildings may also be carried as a separate account.

to increase in amount, but that sooner or later charges must be made against the credit balance which has been gradually accumulated. In case of extensive replacements which substantially prolong the life of a machine the cost therefor should be charged against the Allowance for Depreciation account. On the Balance Sheet (page 45) the Allowance for Depreciation is not shown as a liability of the business, but, since it measures loss in value and efficiency of the assets, it will be deducted from the Machinery and Equipment account. This shows the net book value of that property as of the date of the Balance Sheet.

An understanding of the meaning of "depreciation" is necessary to record it properly on the books. The cost of all fixed plant and equipment is an expense of manufacturing during the life of that specific asset, and it is necessary that each unit of goods produced should bear its proportionate part of that cost. It is for this reason that depreciation is charged regularly and periodically to the manufacturing accounts, instead of waiting until the asset is entirely worn out and discarded before making any charge for the amount of outlay on account of it. As said above, the depreciation itself is an expense and must be charged as an operating cost of the period. The Allowance for Depreciation* (or Reserve, as it is oftentimes called) is the measure of the loss in value which the asset has suffered, or, in other words, it is the "hole in the asset." A depreciation fund, on the other hand, represents actual cash or other assets set aside for the replacement of depreciated property. Thus, a depreciation fund is an actual asset of the business and always stands as a debit on the books.

Oftentimes these terms are incorrectly used and incorrectly applied, but the reader is warned to realize and to know the difference between the depreciation itself, the Allowance for Depreciation, and the Depreciation Fund. Sometimes the Depreciation Fund is for the same amount as is the Allowance for Depreciation, because if the Allowance for Depreciation correctly measures the loss in value and efficiency of the property, the Depreciation Fund may well hold in readiness the cash or other property to make good that loss.

RESERVE FOR INTEREST ON PLANT INVESTMENT

(Account No. 22, page 28)

This account is credited each period, as shown by the Schedule of Fixed Charges (see pages 54 and 55), for the current rate of interest on the plant investment. This interest cost is charged to the manufacturing departments in proportion to the investment in each. This Reserve should be allowed to accrue until the end of the fiscal period, when it will be closed into the Loss and Gain account (see last entry, page 14). The account will show an *earning,* at the current rate of interest, on the total investment in the plant.

In the preparation of the Income Tax Return for the business, it must be remembered that this amount is taxable income just as much as is the amount of profit returned by the trading operations of the business. While this interest on the plant investment is not a trading profit, *it is income,* and must be considered as such by the proprietors.

* The term "allowance" is used to denote an actual loss in the particular asset for which the provision is made; in other words, an "allowance" measures an actual hole in the asset account. A "reserve," on the other hand, denotes a reservation of profits for some specific purpose; the reserve may be used to off-set actual losses, but until so used it records real profits "reserved" for a particular use.

RESERVE FOR OVERHEAD

(Account No. 23, page 28)

To stabilize the business it has been found advisable to provide a Reserve for Overhead account, which will be debited or credited for the difference between the actual cost of materials and operating expenses charged to the departmental factory accounts (pages 32 to 35, inclusive), and likewise to the Work in Process account (No. 6, page 25), and the value of the completed work and of the work in process as credited to these same accounts. This account, in other words, is the adjustor of the monthly fluctuations in cost, and it absorbs the differences between the *set-up cost* and the *actual cost* of the work done. This adjustment will show by how much the set-up hour cost for the current month must be increased or decreased over the preceding month. Inasmuch as the costs recorded on Cost Form 9–H are averages for twelve months, the costs of a single month will fluctuate. This will be illustrated in connection with the transactions entered for the December month (see Part III of this Treatise).

The Reserve for Overhead account should be credited at the beginning or end of each month, or period, for a percentage of the cost of the work done, of the previous month, and a considerable reserve should be kept as a factor of safety—say (just for illustration) not less than ONE per cent. of the cost of completed work for the previous month. Then at the end of the fiscal (or closing) period, any excess over a wise reserve to be kept may be added to the Loss and Gain, and any deficiency may be made up from it. What this reserve will be in the individual businesses of the country, the judgment of the individual executive must carefully determine.

The account is credited at the beginning or end of the month through the Cash-Journal, the amount appearing in the General Ledger column (see first entry, page 10). When the Reserve for Overhead is credited, the departmental accounts (and the Work in Process account) will be debited with their proportionate share based upon the departmental cost of completed work for the previous month.

At the end of the monthly period all adjustments of the departmental accounts will be closed (see fourth entry, page 14) into the Reserve for Overhead account. In case this adjustment appears as a credit in any departmental account, it means that the set-up hour cost is too low and that customers have not been charged what it has actually cost for the work done in that department. On the other hand, if the adjusting balance appears on the debit side of any departmental account, it means that the customer has been charged more than the actual cost of doing the work. In other words, this adjustment will serve as a barometer to guide the proprietor in fixing his set-up hour rates for the following period. If a large reserve for overhead adjustment appears on the credit side of the departmental account the set-up hour rate must be increased, while if a large adjustment appears on the debit side of the account it is a sign that the proprietor may safely decrease the set-up rate.

This adjusting is done for each of the departmental operating accounts at each monthly closing period, it being assumed that if the requisitions of materials are correctly made, and the inventories correctly taken, there will be no such adjustment in the Materials Direct accounts. The Materials Direct accounts have been thus illustrated in the figures presented in the Demonstration Book, and no adjustment is shown for these accounts. However, experience has shown that it is usually necessary to have

a reserve for overhead adjustment in connection with the Materials Direct accounts. Then, as previously explained, at the time of the annual closing, if the Reserve for Overhead account has attained more or less than a "wise reserve to be kept" the difference may be closed to, or may be made up from, the Loss and Gain account. Experience has proven this Reserve for Overhead to be most beneficial in stabilizing the cost of work done in any particular plant.

RESERVE FOR SPOILAGE

(Account No. 24, page 28)

This reserve is provided to take care of the actual cost of work spoiled during any period. A fair estimate must be made of the spoilage cost for the year, which amount will be apportioned over the twelve monthly operating periods. The Reserve for Spoilage account will be credited monthly through the General Ledger column of the Cash-Journal and Purchase Register, and the amount will be distributed to the various departmental accounts on the basis of the cost of completed work in each department. In case of spoiled work, the amount would be charged against this Reserve account. The balance of the account would be carried forward at the end of the month and will appear on the Balance Sheet (see page 45) among the Special Reserves carried on the books of the company. The use of the Spoilage account, as here explained, eliminates the fallacious method of trying arbitrarily to charge spoiled work to the department in which the spoilage supposedly occurred.

INTEREST EXPENSE

(Account No. 25, page 28)

This account is debited for all interest actually paid by the business. While interest is ordinarily considered a manufacturing expense, this account should not be closed into the Factory accounts, for interest has already been charged through the Interest on Plant Investment account on the investment in the business. As illustrated on the Income Statement, it is a financial transaction, and should be charged (page 44) against the Net Operating Profit. The account should show no balance at the end of the period unless interest prepaid or interest accrued exists.

LIGHT

(Account No. 26, page 29)

This account is debited through the Cash-Journal and Purchase Register for the cost of light for the month, or period. The amount is then distributed by journal entry (see distribution entries, page 13) to the various General and Factory Ledger accounts, the distribution being made according to the consumption of light in the various departments.

POWER

(Account No. 27, page 29)

This account is debited for the cost of power for the month, or period. The amount is then distributed through the Cash-Journal to the various Factory Ledger accounts,

the distribution being made according to the consumption in each department. This distribution is made on the basis of the horse power hours and is found by multiplying the horse power of the motor of a machine by the actual running hours and dividing this sum into the charge for power.*

RENT AND HEAT

(Account No. 28, page 29)

This account is charged monthly for the rent of the entire plant and Cash (if paid in cash), or Accounts Payable, is credited for the amount. In case the plant is owned by the company, this account will be charged for the rentable value of the property and a Real Estate Income account will be credited. The Rent account will be distributed monthly; the plant departments, sales rooms, and office being charged for their respective share. This distribution will be made on the basis of the used square feet in each department.

In case a Real Estate Income account is carried on the books, that account should be closed out at the end of the fiscal period to the Loss and Gain account. In the mean time, of course, the Real Estate Income account will be charged for the taxes, insurance, maintenance, and depreciation on the real estate for the year, so that the balance carried to the Loss and Gain account will represent, theoretically, the income received as owner of the Real Estate. This income, like the interest on plant investment, is taxable income in making the Federal Tax Return.

GENERAL AND OFFICE EXPENSE

(Account No. 29, page 29)

This account summarizes all the general and office expenses incurred during the period. It will be charged for the cost of all items of office expense and general expense appearing in the special column in the Cash-Journal and Purchase Register, and, in addition, will be charged for its proportion of the fixed charges, and of the light, rent and heat of the period.

At the end of the month the Salaries account (No. 30, page 29) and the Shipping and Deliveries account (No. 31, page 30) will be closed into this account. This account is then closed into the various factory departments, being pro-rated as a percentage of the total department cost, as shown on the Cost Form 9–H (line 32, pages 57 and 58).

SALARIES

(Account No. 30, page 29)

This account should be debited for all amounts paid officers or clerical help on salary account. In case it is desired to do so, separate accounts may be kept for officers'

* For convenience in plants where there is little monthly fluctuation in power cost it may be distributed proportionately over the twelve months, an estimate being made at the beginning of the year as to the total power cost of the year. This total year's cost may be divided by twelve, and the result thus obtained will be charged monthly to the Factory Ledger accounts, and credited to the Power account in the General Ledger. As power bills are received from time to time, and actually paid, the amount paid would be charged to the Power account. If the estimate of the year's expense was correctly made, the account should balance at the end of the twelve months' period. Any balance remaining in the account may be transferred, if desired, at the end of the fiscal year to the Loss and Gain account, or the balance may be carried forward to the new period to be absorbed through the manufacturing accounts.

salaries and for the clerical salaries of the office. The account is closed at the end of the current period into the General and Office Expense account.

In case the salaries of officers or of the clerical help are not paid in full at the end of the month, the account will show a balance as an accrued liability. It is barely possible, also, that the account might show salaries prepaid, though this is not probable. Otherwise no balance will be carried forward to the next period.

SHIPPING AND DELIVERIES

(Account No. 31, page 30)

This account is charged for wages paid and for all fixed and general charges of the Shipping and Delivery department for the month. These charges will vary from period to period and in different firms, but the items are such that there should be no trouble in distinguishing them as chargeable to the Shipping and Deliveries account. As a usual thing, the account will show no prepaid or accrued items at the end of the month. It is closed at the end of the monthly period into the General and Office Expense account.

ADVERTISING

(Account No. 32, page 30)

This account is charged with the advertising expenses of the period and, as illustrated, is closed into the Selling Expense account (No. 34, page 30) at the end of the month.

This account may represent a deferred expense (meaning advertising prepaid), in which case the balance of advertising unabsorbed by the current month will be carried forward as an asset to the new period. It is possible, also, that the account might represent an accrued liability.* Unless advertising is either prepaid or accrued, the account will show no balance to be carried forward to the following period.

SELLING CHARGES

(Account No. 33, page 30)

The purpose of this account is to show how much of the total expense of selling has been absorbed in the charges to customers. Each time an Individual Job Summary is completed, a certain percentage is added for selling expense (see Individual Job Summary, page 62), and when the job summaries are entered in the Sales Register the selling charges are debited (see page 17A) in the proper column under the "General Ledger" group of columns. The total of this column is then posted at the end of the period to the debit of this account and to the credit of the Selling Expense account (No. 34, page 30).

* This means that advertising expense has accrued against the firm but that bills have not yet been rendered. In case the bills have been rendered to the business the unpaid debt should stand as a credit to a creditor's account and not as an accrued liability in the Advertising account. In other words, if the bill has been rendered the entry debiting Advertising and crediting the proper creditor's account in the Accounts Payable column of the Cash-Journal and Purchase Register should have been made.

The Selling Charges account is closed for the total debits of the period directly into the Loss and Gain account (see Cash-Journal, page 14).

SELLING EXPENSE

(Account No. 34, page 30)

This account is charged for salaries, for all actual selling expenses paid or accrued, and for a proportion of the fixed charges and miscellaneous expenses, as shown by the distribution of these expenses in the Cash-Journal. It is also debited for the cost of advertising, which account (No. 32, page 30) is closed at the end of the month by journal entry into the Selling Expense account.

The account is credited for the amount of selling expenses absorbed during the period by individual jobs, which amount has been debited from the proper column in the Sales Register (page 17A) to the Selling Charges account. The balance of this account, whether it be a debit or credit amount, is closed by journal entry directly to the Loss and Gain account.

It should be understood that the SELLING EXPENSE ACCOUNT *is debited for the actual expenses of selling,* while the SELLING CHARGES ACCOUNT *is debited for the amount of these actual expenses which the individual jobs absorb.* Since one account is closed into the other, the cost is not shown twice. Any debit balance remaining in the Selling Expense account thus represents the failure on the part of individual jobs to absorb the actual selling expenses of the period, while a credit balance in this account shows by how much the individual jobs have over-absorbed these actual selling expenses of the period. In this way the Selling Expense and Selling Charges accounts serve as a guide to the Proprietor to show whether the percentage of selling expense applied against each individual job, or cost of work done, is too large or too small actually to absorb the selling expenses of the business.

SALES ALLOWANCES AND DISCOUNTS

(Account No. 35, page 30)

This account is debited through the special column in the Cash-Journal and Purchase Register for all discounts and allowances made to customers.

As shown by the several entries of the month, the customer receives credit for all allowances of whatever nature made. At the end of the monthly period the account is closed into the Sales account, thus showing that the actual sales of the period have been reduced by the amount of any allowances made. Oftentimes these allowances and discounts are charged directly to the Sales account from the Book of Original Entry, but good bookkeeping demands that the Sales account clearly show the gross sales made for the period, while this account records the reductions from those gross sales to arrive at the net sales of the period (see Income Statement, page 44).

SALES

(Account No. 36, page 31)

The purpose of the Sales account is primarily to show the volume of business done. The account is credited from the Sales Register for the total of all sales made during

the period, as shown by the Sales column, under "General Ledger Credits" (page 17B). The account is debited through the Cash-Journal for all allowances made to customers, these allowances being first posted to the Sales Allowances and Discounts account described above.

The balance of the account represents the net sales of the period (as shown on the Income Statement, page 44), and is closed at the end of the month by journal entry to the credit of the Trading account (No. 38, page 31). This closing entry is made through the Cash-Journal and Purchase Register (see closing entries, page 14). The Sales account shows no balance at the end of the period, for it is simply a clearing account for the sales of the current month.

SPECIAL SALES

(Account No. 37, page 31)

The Special Sales account is credited for any special sales made. These sales, such as spoilage and inside sales, are not chargeable to customers. The account will also include sales of salvage, and will be closed at the end of each current month to the Trading account in the General Ledger. It shows neither a debit nor a credit balance, being an Income account only.

TRADING

(Account No. 38, page 31)

This account summarizes the merchandise operations of the business for the month. It is credited for the net sales from the Sales account, and for any balance of Special Sales as shown by that account. The account is debited for the cost of completed work, as shown by the Cost Completed Work Debit column, under "General Ledger" (page 17A), in the Sales Register. This account, then, serves to bring together for comparison the cost of doing work in the plant, and the return to the business for having incurred those costs. In other words, the departments (and Work in Process) are debited for all costs incurred on account of manufacturing operations, and then as work is completed the departments (and Work in Process) are credited (through the Sales Register), and Trading account, in turn, is debited for the total cost of producing jobs. What customers pay for these same jobs is credited (after passing through the Sales account) to this account, so the management has a ready method of determining the *cost of* operating the business with the *returns from* operating the business.

The balance of the account then shows the gross profit or gross loss on trading for the period, which amount is transferred by journal entry (see closing entries, page 14) to the Loss and Gain account. The Trading account, being a clearing account for the sales and cost of sales of the month, will show no balance to be carried forward to the new period.

DISCOUNTS ON PURCHASES

(Account No. 39, page 31)

This account will be credited for the total of the Discount on Purchases credit column in the Cash-Journal and Purchase Register. The balance of the account at the

end of the month, which shows the total discounts taken on creditors' bills, will be closed directly to the Loss and Gain account.

While sometimes discounts on sales and discounts on purchases are all recorded in the same account, it is better, both from the standpoint of the correctness of the bookkeeping records, as well as for convenience in making the Income Tax Returns, to separate these discounts received and discounts allowed. They are entirely different in their nature, for one represents a revenue and the other an expense.

INTEREST INCOME

(Account No. 40, page 31)

This account will be credited for all interest received from Notes Receivable, from overdue accounts, and from interest earned on the daily balances carried subject to check.

At the end of the period the account will be closed directly to the Loss and Gain account. It should appear on the Income Statement (see page 44) as an item under "Other Income and Expense." In other words, this income is not included in arriving at the net operating profit of the period.

FACTORY LEDGER

(Form C–1, pages 32 to 35 inclusive)

All of the accounts in the Factory Ledger are summarized in total and controlled by the Work in Process account (No. 6, page 25) in the General Ledger. As has been said before, the opening balance of the Work in Process account represents the sum of the opening balances (see abstract of Factory Ledger, page 21) as shown by these Factory accounts.

The debits for the month to the Work in Process account represent in total the detailed debits made to the Factory Ledger accounts, while the monthly credit to the Work in Process account represents the total detailed credits made to these subsidiary accounts. Furthermore, the closing balance of the Work in Process account, as shown by the Abstract of the Factory Ledger (see page 41) represents the sum of the closing balances of the accounts in the Factory Ledger. It is thus seen that these detailed manufacturing accounts are completely summarized and controlled by the one Controlling account in the General Ledger.

PAPER DIRECT

(Account No. 41, page 32)

The opening balance of this account, which represents the paper in process of manufacture at the beginning of the period, is the cost value of paper requisitioned from the stock room for use in manufacturing and which is now being used on partly completed jobs.

The account is debited for all additional requisitions of paper, at cost price, made during the period. The account is credited for the cost of paper going into completed work. For inventory purposes at the end of the monthly period, the actual cost of paper in work in process of manufacture is carried directly to the credit side of the account. This incompleted work may be computed from the entries on the Individual Job Summaries for work in process. The account should then balance if the paper charged to jobs were charged at the actual cost as shown by the debit side of the account.

In the illustrated transactions entered for the December month, it has been assumed that the jobs were charged at the actual cost and that, therefore, there is no reserve for overhead adjustment to be made. If, however, there is any balance remaining in the account it represents a mis-estimate of cost, and this adjustment is closed to the Reserve for Overhead account (No. 23, page 28) in the General Ledger.

The work in process of manufacture is then carried down to the debit side of the account as the balance to the new period. This balance again represents a part of the total work in process at the close of the period, as shown in the Abstract of the Factory Ledger (page 41), and in the Work in Process account (No. 6, page 25) in the General Ledger.

INK DIRECT

(Account No. 42, page 32)

BINDERY MATERIALS DIRECT

(Account No. 43, page 32)

MISCELLANEOUS PURCHASES DIRECT

(Account No. 44, page 32)

These three accounts are entered in the books in the same way as described for the Paper Direct account. If it is possible to charge the jobs produced for the cost of the actual materials used, these accounts will balance at the end of the month when the work in process is entered in the respective accounts. However, as it is often impossible correctly to charge the ink used to the specific job, but only an arbitrary charge can be made for the ink used on small jobs produced, a Reserve for Overhead adjustment may often be necessary. In the illustrated transactions shown in the Demonstration Book no Reserve for Overhead adjustment is shown for any of the Material accounts, it being assumed in this case that the charges made to jobs exactly correspond to the cost of materials requisitioned from the stock.

The balance of these accounts at the end of the period are included in the Abstract of the Factory Ledger (shown on page 41) and in the balance of the Work in Process account (No. 6, page 25) in the General Ledger. These balances are carried forward as the work in process at the beginning of the next period.

GENERAL FACTORY EXPENSE

(Account No. 45, page 33)

This account is debited for wages and for expenses of the plant which cannot be allocated as belonging specifically to any department in the Factory. It will include the salary of superintendent, wages of factory clerks and watchman, and cost of general factory supplies and other similar items of expense. The account is closed at the end of the month (see second entry, page 14) into the factory operating accounts, being prorated on the Summary of Department Cost for the month as a percentage of the total department's direct expense (see Cost Form 9–H, line 17, pages 57 and 58).

As explained under the Work in Process account (see page 36 of Treatise), the amount charged to this account is re-distributed over the productive departments of the factory, and causes the debit and credit postings to the Work in Process account (No. 6, page 25) in the General Ledger to be in excess of the actual cost of work done during the period by the amount of this additional distribution. As it is impossible, however, to charge this expense originally to the several operating departments of the plant, it is necessary to make this re-distribution in the manner explained. It is important that the reason for making this re-distribution be understood by anyone operating the Standard Accounting System. The reason, as explained previously (see page 37 of Treatise), is convenience only, and is not a matter of principle.

STOCK HANDLING EXPENSE

(Account No. 46, page 33)

The balance of this account carried forward from the previous period, and which is shown in the Abstract of the Factory Ledger (page 21), represents a part of the work in process balance at the beginning of the month. The account is debited through the Cash-Journal and Purchase Register for all actual costs of the period. It is credited for the amount of stock handling expense actually absorbed by individual jobs.

The method of apportioning this handling expense is to charge a fixed percentage of the cost of the direct materials used (see instructions in Standard Cost Finding System) as the expense for the handling of those materials. This percentage is determined by dividing the stock handling expense of the previous month or longer period by the cost of stock handled during the corresponding period. This percentage should be corrected from period to period if necessary. The expense is entered on the Individual Job Summary (see "Cost to Post" column, page 62) and is posted to the Sales Register upon the completion of the job.*

Ordinarily the percentage applied to the cost of materials used will not be exactly correct, and, therefore, will not exactly absorb the actual expenses of handling stock during the month. Therefore, in accordance with the explanation given under the Hand Composition department, this over or under absorption of the actual expenses must be adjusted through the Reserve for Overhead account (No. 23, page 28).

* If desired, this handling expense may be distributed on the basis of the number of pounds of stock handled.

HAND COMPOSITION DEPARTMENT

(Account No. 47, page 33)

This account represents one of the productive manufacturing departments of the plant. The balance carried forward from the previous period, and which represents a part of the balance of the Work in Process account in the General Ledger (see also Abstract of Factory Ledger, page 21), shows the value of the work in process in this department, at the set-up hour rate, at the beginning of the month.

The department is debited for all expenses incurred during the period, including wages, fixed and variable charges, and a percentage of the General Factory Expense and General Expense accounts. All charges to the account will be made through the Cash-Journal and Purchase Register.

The account is credited for the cost of completed work, as shown by the Individual Job Summaries of the period, and as recorded in the Sales Register (see page 17) under "Factory Ledger Credits." For inventory purposes at the close of the period, the total cost of the incompleted work of the department is carried directly to the credit side of the account. The amount of this incompleted work will be ascertained by computing from the unfinished Individual Job Summaries of the month the total chargeable hours of work done on these incompleted jobs, and multiplying this total number of hours by the average set-up hour cost of the preceding twelve months, as shown by Cost Form 9–H.*

If all the charges made to jobs on the finished job summaries, and the time charges on incompleted job summaries, are exactly proportional to the departmental expenses of the month, the account will balance at the end of the month. However, as an average hour cost for the preceding twelve months is used for the work done during the month, it is probable that there will be a balance (in addition to the work in process) on one side or other of the account. This balance means that too large or too small a set-up cost has been used for the department. If this balance appears on the credit side of the account, it means that the charges to customers are less than the actual expenses of the department, and to that extent the jobs of the month have failed to absorb the expenses of the month. On the other hand, if the balance appears on the debit side of the account, it means that the amounts charged customers for work done has more than absorbed the actual expenses of the month, and that customers have been charged a rate in excess of the actual cost. This Reserve for Overhead charge, in other words, shows that the hour cost used is out of proportion to the actual cost of the department, and that a higher or a lower rate, as the case may be, should be used in charging to the individual jobs the cost of work done in the Hand Composition department. Whatever this balance may be, and on whichever side of the account it may occur, it is carried to the Reserve for Overhead account (No. 23, page 28) in the General Ledger (see entry, page 14). The work in process is then brought down to the debit side of the account as the set-up cost of incompleted jobs at the beginning of the new month.

* Inasmuch as the set-up cost may vary somewhat from the actual cost, greater accuracy may be obtained by using the actual hour cost of the current month for inventorying the work in process.

OTHER DEPARTMENTAL ACCOUNTS

(Accounts 48 to 55, pages 33 to 35)

Inasmuch as the other departmental accounts are handled in exactly the same manner as the Hand Composition account just explained, it will be unnecessary to discuss each of them in detail. These remaining accounts representing the other departments of the factory are debited and credited, and are adjusted to the Reserve for Overhead account, just as described above. Some of the Reserve for Overhead adjustments probably will be on the debit side of the accounts and some will be on the credit side of the accounts, but the principles involved are the same, for in either case the balance is closed to the Reserve for Overhead account (see entry, page 14). The bookkeeper should have no trouble in closing any number of plant accounts if he understands the explanation given above for the Hand Composition department.

In each departmental account, the balance at the beginning of the period represents a part of the work in process of the business, and at the end of the period the jobs in process will again represent the closing work in process in the respective departments. The opening and closing balances will be reflected in the Work in Process account (No. 6, page 25) in the General Ledger, and in the Abstracts of the Factory Ledger (pages 21 and 41, respectively). All charges and credits of the period also will be reflected in the Work in Process account.

While it is desirable in each case to make the used hour cost absorb the charges made to the department as nearly as possible, it is much safer, obviously, to have the work done in each department more than absorb the actual expense of that department than to fail in absorbing these monthly expenses.

PURCHASE LEDGER

(Form C–2, pages 36 and 37)

It is not necessary to discuss the individual accounts listed in the Purchase Ledger. Each account is credited for amounts purchased from these concerns and each one is debited for amounts paid them on account.

While it is conceivable, and sometimes actually occurs in business, that a creditor may be overpaid and his account, therefore, show a debit balance at the end of the period, the usual thing, of course, will be for all accounts at the end of the month either to balance or to show a credit amount to be carried forward to the following period. The sum of the balances of these accounts in the Purchase Ledger equals the balance shown by the Accounts Payable account (No. 12, page 26) in the General Ledger. These balances will also be listed in the Abstract of the Purchase Ledger (page 41), which abstract should be a supporting schedule to the Accounts Payable item in the Balance Sheet (page 45).

SALES LEDGER

(Form C–3, pages 38 and 39)

As with the Purchase Ledger, it is unnecessary to discuss each individual account appearing in this subsidiary ledger. The accounts will be debited from the Sales Reg-

ister for all sales of printing or materials made to these customers, and will be credited through the Cash-Journal and Purchase Register for all amounts paid on account, or for all allowances and discounts given.

The accounts will show at the end of the period either no balance or a debit balance. The total represents the amount due the business from customers. It is, of course, possible that some account may be overpaid, and may, therefore, show a small credit balance, but this is not usual. In case this does appear, the better accounting method is to include credit amounts in the Sales Ledger as a part of the total Accounts Payable on the Balance Sheet rather than as deductions from the gross Accounts Receivable.

The reverse is true for Accounts Payable, namely, that any debit balances should be treated as Accounts Receivable and not as an off-set to the gross Accounts Payable. The sum of these customers' balances at the close of the period will equal the balance of the Accounts Receivable account (No. 3, page 24) in the General Ledger, and will support, by means of the Abstract of the Sales Ledger (page 41), the Accounts Receivable item appearing in the Balance Sheet (page 45).

IMPORTANT

These General and Subsidiary Ledger accounts discussed above form the basis for the Standard Accounting System and summarize all the information obtained from the various records and books of accounts used. A proper understanding of these accounts means a proper understanding of the condition and functioning of the business, while failure to understand these accounts, especially the operating accounts in the Factory Ledger, means a failure to grasp and to understand the principles set forth in the Standard Accounting System.

STATEMENTS

(Form E–1, 2, and 3, pages 43 to 45)

These three statements, which are prepared only at the close of the current and fiscal periods, summarize the financial operations of the entire business. The Statement of Factory Operations (Form E–1, page 43) analyzes the cost of completed work for the period and gives the Cost Completed Work item as shown on the Income Statement. The Income Statement (Form E–2, page 44) shows what progress the business has made during the period just passed; that is, whether the business has made money or lost money. The net profit or loss for the period, as shown by this statement, is carried to the Balance Sheet as a part of the Surplus, or of the Loss and Gain item on that Statement. The Balance Sheet (Form E–3, page 45) shows the present book value of the assets and of the liabilities and the excess of assets over liabilities, which excess is represented or explained by the Proprietorship accounts.

STATEMENT OF FACTORY OPERATIONS

(Form E–1, page 43)

The statement of Factory Operations should be the first of these three statements to be prepared. All of the necessary information may be obtained directly from the accounts in the Factory Ledger, and it is necessary to ascertain from these accounts the

cost of completed work of the period before either the Income Statement or the Balance Sheet can be prepared. The method of preparing this schedule may be explained as follows:

Turn first to the accounts representing Direct Materials (page 32). These accounts show the cost of requisitions for the month for paper, ink, bindery materials, and miscellaneous purchases, respectively. From these total requisitions will be deducted any credit adjustment for reserve for overhead, or will be added any debit adjustment for the reserve for overhead; this gives the net used cost of the material requisitions for the current month. The reserve for overhead adjustment should be shown on the Statement itself, as illustrated for the several operating departments (see page 43). In case the monthly provision for reserve for overhead is distributed at the beginning of the month over the materials direct accounts as well as over the operating accounts, these amounts should be added to the cost of requisitions to obtain the figure which is carried to the Statement of Factory Operations.

The opening and closing inventories, which appear in each of these subsidiary accounts, are recorded on this Statement in total and are not recorded separately for each department. They, therefore, appear near the close of the Statement.

When the total cost is obtained for each of the direct materials by the method above explained, the amounts are entered in the Current Month column opposite the respective items. To the total of the direct materials charged cost of the period is added the Stock Handling Expense. The Stock Handling Expense is itemized to show not only the used cost, obtained by taking a percentage of the cost of direct materials used, but, as well, the total actual cost and the reserve for overhead adjustment for the month. The total of these amounts (materials and stock handling) gives the gross charged cost of materials and handling for the current period. To this total is added the cost of labor and overhead charges of the factory operating departments.

The cost of operating each of the productive departments of the plant may be ascertained from the respective Factory Ledger accounts. The total debits made to the accounts for the month include the opening provision for the reserve for overhead, the direct labor cost of the period, and the total burden or overhead expense. The sum of these three items make up the actual department expenses of the month. From this total must be deducted any credit adjustment for reserve for overhead, for this credit adjustment means that individual jobs have not been charged as much for work done as the amount actually debited to the departmental account, but only for that total amount less the reserve for overhead adjustment. On the other hand, if the reserve for overhead adjustment at the close of the month appears on the debit side of the Factory account, the amount must be added to the actual expenses of the month to obtain the consumed cost of the department for the period.

On the Statement of Factory Operations, as illustrated, and as recommended for use in the Standard Accounting System, not only is the total consumed cost (that which is actually charged individual jobs for work done) of the period shown, but, as well, the total actual expense of the month, less the credit reserve for overhead adjustment, or plus the debit reserve for overhead adjustment. The reason for showing these actual expenses and adjustments will be obvious to the student of the system. Suppose, to make the illustration more clear, that the only amount shown for the Hand Composition department was the $1,042.30 item (the consumed cost) appearing on page 43; how is the proprietor to know from an inspection of the Statement of Factory Operations

whether this figure represents the actual cost of the department, whether it is considerably above the actual expense of operating the department, or whether it is somewhat below the actual expense of the department for the month. This statement is practically meaningless unless we do show not only the consumed cost of the period, but also the actual expenses of the month and the debit or credit reserve for overhead adjustment as recorded in the books.

The consumed cost for each department is found in the manner described above, but the opening and closing inventory for each account is not taken into consideration until later on the statement. The total cost for all of the operating departments is next found and this total entered in the Current Month column. To this amount is added the gross charged cost of materials and handling, which gives the total consumed cost for materials, labor and overhead expense. To this amount is added the opening Work in Process inventory as shown by that account (No. 6, page 25) in the General Ledger. From the sum thus obtained is deducted the closing inventory of Work in Process as also shown by the General Ledger account. The result obtained is the Cost of Completed Work.

In case there is also manufactured stock made during the month, or in case work is done for the office, this final total on the Statement of Factory Operations must be divided among the cost of completed work (cost of sales), the cost of manufactured stock, and the cost of general and office supplies. Upon the completion of this schedule the bookkeeper is ready to proceed in the preparation of the Income Statement for the month or period under review.

INCOME STATEMENT

(Form E–2, page 44)

The progress of the business during the month, or fiscal period considered, is shown by the Income Statement. Perhaps the foremost question in the printer's mind is whether he has made or lost money during the period just passed, and in order to bring this most clearly before the owner of the business it is recommended that the bookkeeper use the standard form of Income Statement shown in the Demonstration Book (page 44). While only the current month is illustrated in the recorded transactions, provision is made on the form presented by the United Typothetae of America for recording the fiscal year to date, and for showing the corresponding month and portion of the fiscal period of the prevous year. The use of percentages will be found helpful in interpreting the figures on the income statement, and their use is recommended.

The preparation of the Income Statement is not a difficult task. The gross sales of the month may be obtained from the Sales account (No. 36, page 31) in the General Ledger, and the amount will be placed in the Current Month column on the Income Statement form. From this amount all sales allowances and discounts will be deducted in order to show the net sales made to customers during the period. If any special sales have been made during the month, or year, as the case may be, these should be added to the net sales to obtain the gross income from business operations. All items of salvage, which may be carried in a separate account in the General Ledger, should be shown as a separate item on the Income Statement and included in gross income.

From this total so obtained will now be deducted that portion of the Cost of Completed Work, as found on the Statement of Factory Operations, which represents the cost of all work done exclusive of that placed in stock. The balance remaining represents the Gross Profit on Trading. From the gross profit on trading is next deducted the selling expenses of the month. While it is not necessary to do so, it is suggested that the Selling Expenses be subdivided (as shown on the Income Statement, page 44) to show the total amount absorbed by individual jobs, and the amount remaining unabsorbed; in case the actual expense was over-absorbed, show the total amount absorbed less the over-absorption to arrive at the actual selling expense of the period.

The total selling expense deducted from the gross profit on trading gives the Net Operating Profit (or Loss) of the period. To this net operating profit must be added other items of income, such as Discounts on Purchases and Interest, and from it must be deducted other items of expense. The balance remaining represents the Net Profit (or Loss) of the period.

In the preparation of the Annual Income Statement the Interest on Plant Investment should be included under other incomes and expenses, but as this account does not record ordinary profit and loss of operations, it is better to allow this account to accrue until the end of the fiscal year. The statement shown for illustration is simply the statement for the transactions of the month, and does not include the completed operations of the year. Therefore no interest on plant investment is shown in this Income Statement.

This net income of the month should agree with the changes occurring in the Loss and Gain account (No. 17, page 27) in the General Ledger. In case other adjusting items appear in the Loss and Gain account it may be well to prepare a separate schedule (see page 44), explaining in detail the changes which have occurred in the Loss and Gain account.

The net income, as shown by the Income Statement, must be reflected in the Balance Sheet as at the end of the period, for it is this item which enables the bookkeeper to prove as correct the change which has occurred in the Proprietorship as shown on the Balance Sheet. This Balance Sheet the bookkeeper is now ready to prepare.

BALANCE SHEET

(Form E–3, page 45)

The Balance Sheet is the ultimate goal of all accounting and shows the printer the financial status of his business at the time it is prepared. It is recommended that the form of balance sheet shown in the Demonstration Book (page 45) be used in preparing the monthly and annual statements of the present worth of the business. As said before, this form is very simple and easily understood, and it shows the groups of accounts arranged in the general order in which they are arranged in the Ledger.

The assets are divided into current, fixed, and deferred assets. The total for each group is shown separately so that the proprietor may see at a glance the total amount of his working assets, the total net investment in plant and equipment, and the total amount of prepaid expenses. The total of these three groups represents the gross assets of the business.

Next is shown the current liabilities. The total of the current liabilities is given in order that a ready comparison may be made with the total of the current liquid assets. As the solvency of any business depends upon its ability to pay its obligations in the ordinary course of business, the relation between the current assets and current liabilities in any business is most important. Grouped with the liability accounts are the special reserves carried in the Ledger. The total of the current liabilities and of the reserves is then deducted from the total gross assets to ascertain the *Excess of Assets* over liabilities and reserves. This excess of assets over liabilities, as explained early in the Treatise, is the proprietorship in any business. This proprietorship is represented by the proprietorship accounts (Nos. 15, 16, and 17) in the General Ledger.

It will be observed that the two "allowance" accounts, which show credit balances in the Ledger, are not shown on the Liability side of the Balance Sheet. As these two allowances measure *actual holes* in the respective asset accounts, the Allowance for Bad Debts is deducted from the Accounts Receivable, and the Allowance for Depreciation is deducted from the Machinery and Equipment to show the net value, respectively, of those two asset accounts.

While it is impossible to write off any specific customer's account until the asset is actually determined to be worthless, experience has proven that these losses do occur; therefore, while it cannot be said which accounts are bad, the Balance Sheet should show, as the value of the Accounts Receivable, not the gross book value, but what the experience of the individual business and the judgment of the proprietor really expect will be realized from those accounts.

In the case of the Allowance for Depreciation, it has been explained previously that this account measures the estimated loss which has taken place in the Machinery and Equipment; therefore, the present value of the Machinery and Equipment is not the *cost price* which is shown by the Ledger account, but the cost price less this accumulated depreciation, and this value should be shown net on the Balance Sheet. While there is a tendency on the part of some businesses to write up their plant assets to current market values, it has been emphasized continually in this Treatise that the machinery and equipment, or plant assets of any kind, should be carried on the books at original cost, and the depreciation computed on those cost prices. The best accounting practice *demands* that accounts be kept on the basis of cost, and any other basis of account keeping is not only not conservative policy on the part of the business practising it, but is actually dangerous because of the inaccurate information furnished the management. For credit purposes, which is usually the reason given for writing up plant assets, every result may be obtained by simply stating in a footnote on the Balance Sheet the present appraised value of the plant; the books are then left as they should be, namely, to show cost prices only of plant and equipment.

The other accounts shown on the Balance Sheet represent the present balances of those accounts in the General Ledger. The ledger accounts may be balanced before the Balance Sheet is prepared, if it is so desired, so that in checking the items back to the General Ledger it would be found that each amount on the Balance Sheet represented the balance of that ledger account as of the date the financial statement was prepared. It should be observed that only General Ledger accounts appear in the Balance Sheet, the Subsidiary Ledger accounts being summarized by or represented through the corresponding Controlling account.

As previously mentioned, exhibits consisting of Abstracts of the Subsidiary Ledgers (see page 41) should be prepared to support these Controlling accounts appearing on the Balance Sheet of the business. If properly prepared, nothing in the Standard Accounting System will give the printer so much and such valuable information as that which he can obtain from the monthly, or fiscal, balance sheet and from the other statements and exhibits which should accompany it.

ORDER BOOK

(Form G, page 47)

The Order Book, as recommended in the Standard Accounting System, is an Accessory Record and furnishes no information which is transferred to the ledger accounts. It contains memoranda as to the date of the order, the job number, the name of the customer, a brief description of the subject matter of the order, the date the work is promised to the customer, and the date it is billed out. This book well illustrates the value of an Accessory Record, which is not directly a part of the bookkeeping system, but which supports, in a very important and valuable way, entries which do go into the actual books of account. As illustrated in the transactions entered in the books and records comprising the system, the information contained in this book is most valuable as a check on the work done in the plant, and reference will be made regularly and often in any business to this Accessory Record.

As mentioned early in the Treatise, the Order Book should be kept by itself, and it will probably be found desirable to have a separate and bound book in which to record the orders as received from salesmen, or as coming direct from customers.

SUMMARY OF SALES FOR YEAR

(Form H, pages 48 to 52 inclusive)

The Summary of Sales for the Year is provided for those printers who desire to use the Distribution of Sales columns in the Sales Register (described on pages 24 to 31 of this Treatise). It will show in summary the total cost of the month for materials and departments, the total returns from these materials and operating departments and the profit, or loss (in red), for each during the month under consideration. This Summary of Sales will enable the executive to see at a glance the results of his business for the month and it will give him information which he can little afford to be without.

While the "Factory Ledger Credits" columns (pages 17 and 17A) in the Sales Register give the detailed cost of the month for jobs, and the "Distribution of Sales" columns (pages 17B and 18) give the detailed returns of the month's jobs, this monthly summary of sales gives the identical information *in total*, and shows, in addition, the opening and closing inventories of work in process for the month, and the adjustments for reserve for overhead (the credit adjustments in red), thus placing before the printer in actual figures the month's profits, or losses (in red), on the materials used and for each of the operating departments of the month. The Summary should be made up monthly.

The amounts in the Opening Inventory column will be the opening inventories as shown in the Factory Ledger accounts (pages 32 to 35 inclusive). These inventories will be placed opposite the corresponding account, as shown under the heading "Division of Sales." In the next column, entitled Monthly Cost, will be entered the total costs of the month. The total cost for each subsidiary account is represented by the total debits, including the reserve for overhead debit made at the beginning of the month, as shown by the Ledger account. It does not, however, include the closing adjustment to Reserve for Overhead, either when that adjustment is a debit or when it is a credit. This means, in other words, that the amount entered in the Monthly Cost column is composed of the total debits appearing in the respective accounts in the Factory Ledger for the month, exclusive of the opening inventory of Work in Process, and exclusive of any debit item at the end of the month representing the final adjustment to the Reserve for Overhead account.

The Selling Expense for the month will be obtained from the account of that name (No. 34, page 30) in the General Ledger. There will be no opening or closing inventory for selling expense.

The closing inventories will next be entered in the Less Closing Inventory column. These closing inventories, as explained previously, have been computed from the incompleted Individual Job Summaries and have been entered directly to the Factory Ledger accounts.

In the Reserve for Overhead column will be entered the closing adjustments of the Factory accounts. If this closing item for Reserve for Overhead adjustment appears on the credit side of the Factory account it should be entered in this column in red ink, while if it appears on the debit side of the Factory account it will be entered in black ink. The total of the column, obviously, will be in red or black, depending upon whether the sum of the red ink items or the sum of the black ink items is the larger. This reserve for overhead, it should be remembered, adjusts or equalizes the actual costs of the month with the set-up costs shown on the Individual Job Summaries, and as recorded in the Sales Register. The black ink items mean the customer has been charged that much more than the regular selling rates; the red ink items mean that the actual billed price is by so much less than the regular selling rates.

The next column is entitled Net Monthly Cost. The items appearing in this column correspond in amount with the totals of the special columns appearing in the Sales Register under "Factory Ledger Credits." In other words, the amounts represent the cost of completed work in each department for the month. The amounts may be arrived at by adding the items appearing in the first two columns, then deducting from this sum the closing inventory appearing in the Less Closing Inventory column, and then deducting from this amount any red ink item appearing in the Reserve for Overhead column, or adding to the amount the black ink item appearing in the Reserve for Overhead column. The result will be the net monthly cost, and, as said previously, corresponds with the totals of the special distribution column in the Sales Register. The net monthly selling expense is made up of the debits to the Selling Expense account (No. 34, page 30) in the General Ledger, and is the same amount as appears in the Monthly Cost column of the Sales Summary.

The items appearing in the next column, entitled Sales, are taken from the "Distribution of Sales" columns in the Sales Register. As previously explained, these columns in the Sales Register are totaled at the end of the month, and these totals appear

as the items in this Sales column in the Summary of Sales. The total of the Sales Adjustment column, under "Distribution of Sales," is included also with these items in the Sales column, though it is not off-set by any item in the Net Monthly Cost column. As the items appearing in the Sales Adjustment column in the Sales Register show an extra profit over the regular selling rates, or by how much the actual billed price is less than the regular selling rates, the item stands here as a profit or loss (if in red) and is carried as such into the Gain or Loss column. All amounts appearing in the Net Monthly Cost and Sales columns are now compared to show the gain or loss on materials used and for each of the operating departments for the month. Losses should be entered in red ink to distinguish them from the profits of the month.

The columns are next totaled and these totals are used to prove the arithmetical accuracy of the work. The total Opening Inventory plus the total Monthly Cost, less the Closing Inventory and less the red ink Reserve for Overhead item, or plus the black ink Reserve for Overhead item, equals the total Net Monthly Cost. The difference between the total of the Net Monthly Cost column and the total of the Sales column must be the same as the net difference between the black ink items and the red ink items appearing in the Loss and Gain column. If the whole business shows a loss for the month, the total of the Net Monthly Cost column must exceed the total of the Sales column by that exact amount.

The same method should be used in distributing departmental sales and costs for each month. At the end of the six months period the total losses and gains for each material and for each operating department may be assembled as a net loss or gain, and should be entered in the Total Loss or Gain columns appearing to the right of the form (page 50). These Total columns should be used, for they show whether a department is losing or gaining over a considerable period of time. It is not improbable that any department may show a loss during any one month, but no department, or material, should be permitted to continue recording losses over extended periods of time.

In the case of Manufactured Stock, the opening inventory would be obtained from the account of that name (No. 5, page 24). The cost for the period would also be obtained from the Ledger account and would correspond to the Manufactured Stock Factory Cost Debit column under "General Ledger" (page 17A). From the sum of these two amounts would be deducted the inventory at the close of the period, thus giving the net cost for the period. If no manufactured stock has been sold during the month this amount would also be entered in the Sales column, showing no profit or loss on manufactured stock during the month. If manufactured stock has been sold during the month the profit on the sale (as shown by the Manufactured Stock column, under "Distribution of Sales," page 17B) would be included with the cost in the Sales column. The Manufactured Stock would thus show as a profit for the month the amount shown by this distribution column in the Sales Register.

As explained under the Sales Register (see page 31 of Treatise) the cost of manufactured stock is not only entered in the "Factory Ledger Credits" columns of the Sales Register, but also in the "Distribution of Sales" columns at the time Job Summaries are completed. Therefore, it is only the amount of profit on manufactured stock actually sold, and which profit is shown in the distribution column of the Sales Register which, in any case, will be reflected in the Summary of Sales for Year as a profit on manufactured stock.

SCHEDULE OF FIXED CHARGES

(Form J, pages 54 and 55)

The Schedule of Fixed Charges furnishes the information in regard to depreciation, interest on plant investment, insurance, and taxes that is necessary to aid in making the bookkeeping entries to the detailed accounts in the Factory Ledger, and to assist in determining the productive hour cost as shown on Cost Form 9–H (pages 57 and 58). This schedule is prepared at the beginning of the fiscal period and should remain unchanged throughout the year unless there are considerable changes, or adjustments, to be made. If a large amount of machinery is either purchased or sold, or if the inventory is increased or decreased to a considerable degree, adjustments should be made accordingly for the remaining period of the fiscal year.

The Schedule of Fixed Charges for the Year is shown on page 54. First a list is made of the inventory cost of machinery, type, and equipment of all kinds, as well as of the average amount of materials on hand. This shows the investment value in each of the departments, or in each kind of materials. The names of the departments and materials are listed in the first column, under "Departments" and the values are listed under "Inventory Cost." These values are then totaled to show the aggregate investment value in equipment and inventories.

Following the Investment Cost column are columns for Depreciation, Interest on Plant Investment, Insurance, and Taxes, respectively. The Depreciation column is sub-divided to show the percentages and the amounts of depreciation to be charged on the respective departmental values as shown in the Inventory Cost column. The rates of depreciation are found in the Treatise on the Standard Cost Finding System (see Appendix C). The rate on type faces is 25 per cent. annually, while the depreciation on machine composition metal is taken on the value of the metal melted. For all other classes of equipment depreciation is computed at the rate of 10 per cent. annually. No depreciation is taken on paper, ink, and other material inventory items. While no rate is here given to be used on the Machine Composition metal, it has been customary in practice to deduct a percentage (say, for illustration, 2 per cent. on linotype metal and 3 per cent. on monotype metal) of the value of the metal melted during each month. Accuracy would demand that, where possible, the depreciation on metal be determined by weight.

Interest on Plant Investment is determined for each department by using the legal rate. The cost of fire insurance for the year is distributed on the basis of the value of the department's equipment, while taxes, which can be ascertained in total from the annual tax assessment, are distributed on the same basis as insurance. The interest on plant investment, and the insurance and taxes expense are apportioned to the material inventories as well as to the equipment investment in each of the operating and administrative departments of the business. The portion of these expenses chargeable to the materials is included on the Cost Form 9–H as a part of the Stock Handling Expense.

To obtain the specific figures necessary for making the entries of each month, the Schedule of Fixed Charges for the Month is shown on page 55. Here the same items are listed and the same expenses are shown (the inventory cost of departmental equipment and of materials being eliminated), except that the charges are here shown at just one-twelfth of the amount shown on the previous page on the Schedule of Fixed

Charges for the Year. The items shown here for depreciation, interest on plant investment, insurance, and taxes, respectively, will be the debits made monthly to the subsidiary Factory accounts, and will be the items entered on the Cost Form 9–H (see Total column and distribution to departments, pages 57 and 58). These fixed charges are debited monthly to the proper accounts through the Cash-Journal and Purchase Register (see distributions, page 13).

It is obvious from the explanation given that the Schedule of Fixed Charges for the monthly and yearly periods furnishes the information from which these cost figures are derived. The schedule is of great valu' in assisting the bookkeeper to make the debits to the subsidiary accounts in the Factory Ledger and to the Work in Process account in the General Ledger, and, as well, to assist in determining the productive hour cost on the Summary of Department Cost (pages 57 and 58). Whether this Schedule is made out in definite form, as here recommended, or whether these charges are simply arrived at through a careful estimate, it is obvious that all fixed charges must be determined before accurate costs can be estimated or can be determined for the production of the period.

SUMMARY OF DEPARTMENT COST

(Cost Form 9–H, pages 57 and 58)

It is stated in the Standard Cost Finding System that the Summary of Department Cost is, in effect, the keystone of the Cost Finding System. If the expenses are properly recorded and are correctly entered on this sheet, and if the productive hours of the period have been correctly computed, an accurate statement of departmental costs will be obtained. **As mentioned earlier in this Treatise, the Summary of Department Cost (Cost Form 9–H) is one of the two forms (the other being the Individual Job Summary, Cost Form 2) which summarizes the information necessary to interlock the Standard Accounting System with the Standard Cost Finding System. The figures recorded on this Summary must be obtained from the books of account, and it is for this reason that it is so important that the figures recorded in the bookkeeping records be correct in amount and in the classification made.**

The expenses on the Summary of Department Cost are divided into three groups, namely, Fixed Expenses, Current Expenses, and General Expenses. It is in connection with the fixed expenses that the Schedule of Fixed Charges will be found most convenient. All items of fixed expense, except the rent and heat, are recorded on the Schedule of Fixed Charges and the amounts may be entered to the various operating departments on the Summary of Department Cost exactly as shown by the sub-divisions of these expenses on the Schedule of Fixed Charges. The Rent and Heat expense is distributed to the various departments on the basis of used square feet. The total square feet used in all departments divided into the total rent charge gives the proper per used square foot charge, and this amount multiplied by the department used area gives the rent and heat cost of the month applicable to each operating department. In case the heat is not included in the rental charge, it should be listed under Current Expenses.

Under Current Expenses is grouped the wages, light, power, repairs, direct supplies, and the spoilage expense of the month. Wages are distributed to the departments in accordance with the actual earnings of employees in these departments, as

shown by the payrolls. This same distribution is entered as a debit to the respective subsidiary Ledger accounts through the Cash-Journal and Purchase Register (see second entry, page 13). The distribution of light, power, and the other current expenses is made in accordance with the explanation given in the discussion of the respective Ledger accounts. It is observed that provision is made for spoilage on the Cost Form 9–H. This amount is debited to Work in Process account (No. 6, page 25) and is credited to the Reserve for Spoilage account (No. 24, page 28). Then when *actual* spoilage occurs, it is debited to the Reserve for Spoilage account, for an amount has already been included in the costs and it must not be included a second time.

The General Factory Expense column (see line 15) and all of the plant operating departments' columns (see line 16) are now totaled. The General Factory Expense is next distributed on a percentage ratio to the various operating departments. This distribution of the General Factory expense having been accomplished, the total factory cost of departments is determined and is shown on line 18 of the Summary.

The various General Expense items, including salaries, general and office expense, selling, advertising, shipping and deliveries, and provision for bad debts expenses, are next extended to the general columns. Each of these columns is then totaled. The total of the Shipping column is carried over into the General Commercial column to obtain the final total of General Commercial Expense.

This General Commercial Expense total (line 31) is then divided by the total of the Factory Cost of Departments (line 18) to obtain a percentage ratio. The distribution of the general commercial expense is then made in accordance with this percentage so obtained. This distribution to the various operating departments is then added to the Factory Cost of Departments (line 18) to obtain the Total Cost of Departments (line 33). It will be observed that the totals of the Stock Handling and Selling columns have not been included in the distribution of the general commercial expense to the operating departments. These expenses will be explained later. The accuracy of the distribution should now be proved. The sum of the total costs of departments, plus the total of the selling expense and the total of the stock handling expense must equal the sum of the Total column to the extreme left of the form. This method of distributing all of the operating expenses of the period conforms to the recommendations of the Standard Cost Finding System (see Appendix C of this Treatise).

The stock handling expense should be distributed as a percentage to the cost of stock used, while the selling expense total becomes a percentage to the cost of completed work, as shown in the Sales Register (page 17A). Neither the stock handling nor the selling totals enter into the productive hour cost as obtained on Cost Form 9–H, but these percentages are applied directly to the cost of stock used and to the cost of completed work, respectively.

The chargeable hours for each department are now ascertained (from Standard Cost Finding Monthly Record of Chargeable and Non-chargeable Hours). These totals are divided into the total costs of the respective departments. This gives the cost per chargeable hour (exclusive of stock handling and selling) for the current period. As shown by the Summary of Department Cost form (line 36), this cost per chargeable hour for the month will now be combined with the cost per chargeable hour for previous months to arrive at an average cost for use in the various departments. Additional information, regarding the Factory Cost per Department per Chargeable Hour for the

current month and for a series of months, and the percentage of chargeable (productive) time in each department, will be valuable to the proprietor for administrative purposes. The figures shown on the Summary of Department Cost (pages 57 and 58) are illustrative of methods only. A full and complete discussion of printers' costs, as explained in the Treatise of the Standard Cost Finding System (see Appendix C) may be obtained, if desired, from the United Typothetae of America, 608 South Dearborn Street, Chicago, Illinois.

INDIVIDUAL JOB SUMMARY

(Cost Form 2, page 62)

The Individual Job Summary, which is explained in the Treatise of the Standard Cost Finding System, is the other Cost Form which summarizes the information necessary to interlock the Standard Accounting System with the Standard Cost Finding System.

The form, as shown in the Demonstration Book, includes not only the summary of costs for the job, but the detailed productive hours in the various operating departments which form the basis for making up those costs. The sheets should be consecutively numbered and kept in a loose-leaf binder. Then, as jobs are completed and entered in the Sales Register, the sheets may be taken from the active binder and put into another binder for ready reference. After one month or other convenient period, the sheets should be carefully filed for permanent reference. As the Time Tickets are received day by day from the workmen in the plant, the cost clerk enters to the various jobs in process the details of the operations performed, and the hours worked for each job. Then, when the job is completed, these sets of figures for the various operating departments are summarized and the total hours entered in the Hours column in the Summary section of the sheet. These hours multiplied by the set-up hour cost give the itemized cost for each operation in producing the job. It is very desirable to know the cost of various operations (such as setting, make-up, lock-up, etc.) as illustrated for the Hand Composition department, but it is not desirable to carry separate accounts in the Factory Ledger for all of these sub-divisions of operations in the various departments. Therefore, the cost of operations are shown separately in the Itemized Cost column, but are summarized in the Cost to Post column. The items appearing in the Cost to Post column, both for direct materials and for operating departments, are carried to the distribution columns under "Factory Ledger Credits" when the individual job is entered in the Sales Register. The method used to record the detailed costs is also employed for recording the departmental selling prices. The itemized amounts for various operations and materials are shown in the Itemized Selling Price column, but only one amount is shown for each direct material or for each operating department in the Sell to Post column. These sell to post items are the amounts which are listed in the respective columns under "Distribution of Sales" (pages 17B and 18). If the Distribution of Sales columns in the Sales Register are not used, the itemized amounts will not be entered in the Selling columns—in fact, the columns would not be used at all. A selling figure will be entered for "Billed Price" only.

To the Cost of Completed Work, and to the Selling Price (at the used selling rates) of the same work, is added the selling expense. This gives the total cost of the job and the total price at which the job *should* be sold; however, usually this selling price will

not be an even amount and the job will actually be sold at an even figure above or below this selling price as computed from the used selling rates. As illustrated in the Demonstration Book, the Selling Expense is extended into the Sell to Post column at cost, but, in accordance with the custom of some printers, a profit may be added to this item.

As shown at the top of the Summary, the customer's name and address, the salesman, a brief description of the job, the date it was entered, promised, and billed to the customer, the job number, the bill number, and the folio are all given. Upon the completion of the job it will be billed to the customer and the entry will be made in the Sales Register, as explained in the discussion of that book. In case the job was put in stock and not billed, it would be charged to Manufactured Stock and would be entered in the Factory Cost Manufactured Stock column, under "General Ledger" (page 17A).

Inasmuch as the Sales Register furnishes the entire information necessary to credit the factory operating accounts and to credit and debit, respectively, the general ledger accounts affected in the billing out of completed jobs to customers, and inasmuch as this information must all be obtained for the Sales Register from the individual job summary described above, the Cost Form 2 is absolutely essential in interlocking the Standard Accounting System with the Standard Cost Finding System.

PART III—THE OPERATION OF THE SYSTEM

All of the books, records, and accounts necessary for the operation of the Standard Accounting System have now been described and explained. To the reader who is not interested in anything more than the general understanding of the system no further perusal of this Treatise is necessary; but for the bookkeeper who is actually to use the books herein illustrated, and who desires some definite illustrations of the entering of transactions, a series of transactions for a typical printing plant will be entered in the Demonstration Book.

The Henry P. Nelson Printing Company, of Cambridge, Massachusetts, has had in operation throughout the current year the United Typothetae of America Standard Accounting System for Printers and has kept the classification of accounts recommended in that system. Trial Balances have been taken at the close of each month's work and statements of plant operations, of income, and of assets and liabilities have been prepared. Closing entries have been made in the Cash-Journal and, after these entries have been posted, the Ledger accounts have been balanced, or ruled up. The closing of the books for November has been completed, and a post-closing Trial Balance (Demonstration Book, page 20) as of December first has been prepared. In the Trial Balance it will be observed are three controlling accounts, namely, Accounts Receivable, Accounts Payable, and Work in Process. As each of these accounts controls a subsidiary ledger, it is necessary to know that the balances of the individual controlling accounts equal, respectively, the sums of the balances of the accounts in the subsidiary ledgers. An inspection of the Abstracts of the Subsidiary Ledgers (Demonstration Book, page 21) shows that in each case the sum of the balances of the subsidiary accounts corresponds to the balance shown for the controlling account in the Trial Balance.

Turning to the Ledgers (Demonstration Book, pages 24 to 39 inclusive), the accounts are found to be indexed properly (page 23), and the balances of the accounts shown in the Trial Balance and in the Abstracts of the Subsidiary Ledgers have been carried down as balances under date of December first. Therefore, as a basis for beginning your work, you have the Trial Balance and the Abstracts of the Subsidiary Ledgers as of December first, all of the accounts that have been kept in the General Ledger (some of which show balances brought down to the December month and some of which are now ruled up and closed), and also the balances brought down in the various accounts in all of the Subsidiary Ledgers. In addition, the bank balance has been entered in the Deposit column on the first line of page 10 (Cash-Journal and Purchase Register). You find also in the Order Book (page 47) the orders which have been entered in the month of November but which have not been completed and billed out to customers. These two jobs, No. 1678 for Silas Marner, and No. 1680 for Nicholas Nickleby, are in process of manufacture and incompleted Individual Job Summaries are on hand and show the work that has been done to date on both jobs. Besides all this, you also find on hand the Schedule of Fixed Charges for the month, and for the year (pages 54 and 55). This Schedule was, of course, prepared as of January first, or as soon thereafter as possible, and has been used continuously throughout the year.

Inasmuch as scrapped assets might have been charged at cost price against the Allowance for Depreciation account (and credited to the Machinery and Equipment account) there need not be any special relation between the balance shown by the Ledger account and what would be normally the eleven months' accumulation to that account. The same is true of Insurance and of Taxes, for additional policies of insurance may be taken out at any time, and taxes are paid periodically throughout the year. However, the Reserve for Interest on Plant Investment account should now stand in the Ledger with eleven months' accumulation for interest. Reference to the Ledger account (No. 22, page 28) shows a credit balance in this account of $2,200.00, which is exactly the eleven months' accumulation at $200.00 per month.

Your work will be directly under the supervision of Mr. Henry P. Nelson, who is Treasurer and General Manager of the Company, while Mr. Sydney Carton, the President, and other main stockholder, is the salesman for the Company. With this inspection of the books, the accounts, and the various records making up the system, you are ready to begin the actual entering of the transactions of the month.

December 1

Transaction No. 1

Robinson Crusoe orders 2,500 advertising handbills, which are promised him by December twentieth. This transaction requires at once the making out of a job ticket, and an Individual Job Summary. The name of the customer, his address, the name of the salesman (Sydney Carton), the description of the job, and the other data called for at the head of the Individual Job Summary must be entered. The folio page, of course, will not be entered until the job is completed and is debited to the customer's account. Then, turn to the Order Book and record the order as follows: the date should be entered in the date column, the Job Ticket number 1681 in that column, the customer's name (and address, if desired), a brief description of the order, and the date the job is promised. Daily reference, undoubtedly, will be made to the Order Book to ascertain from day to day what jobs are soon to be delivered, and then to find out whether the business will be able to deliver these completed jobs on the date promised.

Transaction No. 2

At the beginning or at the close of each month, it is necessary to make an entry to the Reserve for Overhead account (No. 23, page 28), crediting that account for a sufficient amount to provide against any failure of the set-up hour rates to absorb the actual expenses of manufacturing of the month. Reference to the Sales Register for November shows what the cost of work done in the various operating departments amounted to, and, in accordance with that information, the first entry (page 10) is made in the Cash-Journal. The operating departments are charged in this entry for one per cent. of that cost, and the entry is made in the Factory Accounts Debit column debiting the operating accounts in the Factory Ledger (and Work in Process account in the General Ledger through the total of the column), and crediting the Reserve for Overhead account for the total amount in the General Ledger column. The bookkeeper should observe that these charges could have been made to the Factory accounts either as illustrated in this entry, or the total amount, $78.78, could have been entered in the Factory Accounts Debit column as one amount on the same line with the credit to the

Reserve for Overhead account, and the distribution to the various departments have been entered in the distribution columns under "Factory Accounts Debits."

It would be desirable to make the entry the latter way except for the following reasons:

(*a*) It is desirable to show in the Factory Ledger accounts at the end of the month as separate items (i) the Reserve for Overhead charge, (ii) the Wages charge of the month, and (iii) the total burden, or overhead expense, of the month. Therefore, these individual items for reserve for overhead are entered in the Factory Accounts column and posted separately, rather than being placed in the distribution columns and posted in totals. If the amounts were distributed and posted in totals, this debit would be combined with the overhead expense, and nothing would be shown in the Ledger accounts concerning the provision for burden adjustment.

(*b*) Likewise, it is desirable to show in the "Factory Ledger Debits" distribution columns during the month only charges for direct supplies and expense, in order that at the end of the month, when we are ready to prepare the Cost Form 9–II, the totals of the various columns in this group may be carried directly to the Summary of Department Cost Statement (pages 57 and 58) and entered on line 11. This latter reason is especially important from the standpoint of ascertaining at the end of the month this portion of the information necessary to prepare the Cost Form 9–II, and to obtain the cost per chargeable hour for the month. Besides, as stated before, there will be usually no charges to the Factory accounts *during* the month except for direct supplies and expense (aside from the opening entry for Reserve for Overhead account). It is feasible, therefore, to make the reserve for overhead entry entirely through the Factory Accounts column, rather than through the distribution columns under "Factory Ledger Debits."

If this entry is not made until the close of the month, all debits to the Work in Process account during the month would usually be distributed in the columns under "Factory Ledger Debits" and the Factory Accounts debit column in the Cash-Journal and Purchase Register would summarize the total of the amounts distributed to the Factory accounts. The entry may be made either at the beginning or at the close of the month's transactions.

Transaction No. 3

As shown under the department sections of the Individual Job Summary (page 62), entries must be made daily from the Time Reports charging the various jobs for the work done during the preceding day. This means that the entry on the Individual Job Summary for November thirtieth, listed in the Machine Bindery section, was transcribed on December first, for the ticket of each employee will probably be turned into the office in the evening and will not be recorded on the Individual Job Summaries until the following morning.

Because of the fact that this procedure is a part of the Standard Cost Finding System, and not of the bookkeeping system, no further reference will be made to the entering of these productive hours on the Individual Job Summary.* If the book-

* The Educational Committee of the United Typothetae of America has prepared a Course of instruction on the Standard Cost Finding System. It is recommended that bookkeepers and cost clerks avail themselves of this Course.

keeper understands the operation of the Standard Cost Finding System, he is familiar with this process, and, in any case, must remember that the employees' Time Tickets are to be transferred daily to the incompleted jobs in process of manufacture. The Individual Job Summary shown in the Demonstration Book is most satisfactory for this purpose. It is not too large to be inconvenient and it enables the bookkeeper to make the transfers from the Daily Time Tickets to the same side of the Summary sheet where the summary for the job is later shown. Then, on the completion of the job, the results of all of these operations are summarized under the Summary part of the Individual Job Summary. Everything regarding the one job is shown in convenient and compact form—the bill may be carboned on the reverse side of the Summary, if desired, when all information regarding the completed job is accessible on this one sheet.

December 2

Transaction No. 4

We purchase from Wm. M. Thackeray Printers' Supply Company direct factory supplies amounting to $22.20. $3.91 of this amount is chargeable to the job press department, and $18.29 to the medium cylinder department. The entry will be made in the Cash-Journal and Purchase Register, crediting the Wm. M. Thackeray Printers' Supply Company (and Accounts Payable, as well, through the column total) in the Accounts Payable credit column, and debiting Work in Process account in the Factory Accounts column—at the same time making the distribution as shown in the special columns under "Factory Ledger Debits." As shown by the folio figure, the amount $22.20 is posted to the credit of the creditor's account in the Purchase Ledger. These postings to customers and to creditors should be made daily, or at any time when it is convenient for the bookkeeper to make them. However, as there is considerable additional work in the closing at the end of the month, the bookkeeper should not allow this work to accumulate but should keep it done from day to day.

Transaction No. 5

Robinson Crusoe pays his bill, No. 1660, in full, less cash discount of 2 per cent. The entry must be made in the Cash-Journal and Purchase Register. As the amount of the bill is $345.00, Mr. Crusoe must be credited in full for that amount. This is entered in the Accounts Receivable credit column, but as only $338.10 of cash is received, only that amount can be entered in the Cash debit column. The difference, $6.90, is a discount and will be entered in the Sales Discounts and Allowances debit column, as shown by the entry. The credit to Robinson Crusoe should be posted, as soon as convenient, to his account in the Sales Ledger. No other cash having been received by the time the daily deposit was made in the bank, the $338.10 is deposited and is entered in the Deposit column under "Bank."

Transaction No. 6

Dombey and Son order 400 office manuals, to be bound in leather and delivered by the twenty-fourth of December. Make the entry in the Order Book, as previously explained.

December 3

Transaction No. 7

We purchase of The Henry Drummond Company supplies amounting to $120.00. Of this amount, $91.98 is for the factory and $28.02 for the office. The factory supplies are distributed $38.11 to the stock department, $22.12 to the hand composition department, $4.25 to the machine composition department, $10.00 to the job press department, and $17.50 to the medium cylinder department. The voucher, No. 488, is prepared and the entry is made as shown in the Cash-Journal and Purchase Register. The credit posting should be made to the Henry Drummond Company's account as soon as possible.

December 4

Transaction No. 8

We pay in full voucher No. 462 for bill of Rudyard Kipling Paper Company, for goods purchased November twentieth. As the total amount of the bill is $960.00, the creditor must be debited in the Accounts Payable debit column for that amount. But, as we deducted a 2 per cent. discount for cash payment, the amount of our check is only $940.80. This amount is entered in the Cash credit column, and in the Check Amount column, while the number of the check is entered in the Check Number column. The difference between the cash paid and the total indebtedness which we have cancelled, or $19.20, is placed in the Discounts on Purchases column. The bookkeeper will observe that the total debit $960.00 equals the credit $940.80, plus the credit $19.20, thus maintaining the equality of the double entry. The debit to the Rudyard Kipling Paper Company should be posted at the earliest convenience of the bookkeeper.

Transaction No. 9

Tristram Shandy orders three thousand advertising leaflets, and desires them by the eighth of the month. This we shall enter as a *rush* order. Make the memorandum in the Order Book accordingly.

Transaction No. 10

Tom Jones has ordered one thousand 12-page advertising folders, size 6 x 9 inches, to be delivered December eleventh. Enter in the Order Book as previously instructed.

Transaction No. 11

Job No. 1678, for Silas Marner (see Individual Job Summary, page 62), has been completed. You will assemble the detailed information for the several materials used and for the operating departments under "Summary." Compute the cost in detail, and in total, for the various materials and for the operating departments, in accordance with your cost rates shown by Cost Form 9–H, and compute the selling price in accordance with the selling rates used by the Henry P. Nelson Printing Company. The cost of handling stock is here taken as 12½ per cent. of the cost of stock used. The cost of selling has also been computed as 12½ per cent. of the cost of completed work. Both of these percentages are illustrative only, and are not intended as setting any precedent for the industry. It will be observed that no profit has been computed on

the selling expense, the amount being carried over at cost into the Sell to Post column. Having completed the cost and selling prices, as shown by the Cost to Post column and by the Sell to Post column, enter under "Bill Price" the amount which the business is charging Silas Marner for this job. This amount is $960.00.

You are now ready to enter the Individual Job Summary in the Sales Register. The customer is charged and Sales are credited for the billed price. The customer's debit, as previously explained, is entered in the Accounts Receivable column under "General Ledger Debits" (page 17), and the selling price is entered in the Sales column under "General Ledger Credits" (page 17B). Next enter in the distribution columns under "Factory Ledger Credits" the various items shown in the Cost to Post column of the Individual Job Summary. These items correspond exactly with the column headings as shown in this section of the Sales Register. The total of the Cost Completed Work is then entered in the Cost Completed Work debit column under "General Ledger" (page 17A), while the selling charge is entered in the Selling Charges debit column.

Next, the total cost is entered in the Total column under "Sundries" (page 17B). The difference between the total cost, meaning the cost of completed work plus the selling expense, and the sales price is entered in the Gain column under "Sundries," this amount being $128.56. This represents the amount the business made on this job, No. 1678, for Silas Marner. To the extent of this job's portion of the month's reserve for overhead adjustment, and of its portion of the mis-estimate in selling expenses, this is not a true profit. For all practical purposes, however, this is the profit on this job, it being a part of the system to absorb these mis-estimates in expenses.

The next step is to enter in the detail columns under "Distribution of Sales" the items appearing in the Sell to Post column on the Individual Job Summary. These items again correspond exactly to the column headings appearing in that section of the Sales Register. The billed price is again entered in the Total column at the extreme right of the Sales Register (page 18). The difference between the selling price, as computed from the used selling rates, and the actual billed price to the customer will be entered in the Sales Adjustment column. If the billed price is the larger, this amount will be written in black ink, but if the computed selling price is the larger, the difference should be written in red ink. The completed entry appears, as illustrated, on pages 17 to 18, inclusive, in the Sales Register.

Turn now to the Order Book and write in the Date Billed column the present date. This completes the record in the Order Book and any future reference to the book will show Silas Marner's order, No. 1678, to have been billed as of this date.

The bookkeeper should study carefully the entry in the Sales Register of the completed Individual Job Summary, for brief reference only will be given these Sales Register entries as the month's transactions proceed. Note carefully, also, the relation between the Cost to Post items on the Individual Job Summary and the Factory Ledger accounts credits in the Sales Register.

December 6

Transaction No. 12

Voucher No. 489 is prepared for the payroll for the week ending December fifth. The amount, $520.65, is entered in the special Payroll debit column and in the Cash

credit column, while the check, No. 370, is entered in the Check column under "Bank." As the Wages account (No. 14, page 26) will be debited for the total of the Payroll column, and as Cash (Bank) will be credited for the total of the Cash credit column, no individual posting need be made for this transaction. Therefore, place a check mark (√) in the Folio column to show that no individual posting for this item will be made.

Transaction No. 13

The rent for the month is paid in cash. Voucher No. 495 is made out, and the debit is made to the Rent and Heat account through the General Ledger debit column. The cash is entered in the Cash credit column, while the check, No. 371, is entered in the Check column. Post the individual amount to the Rent and Heat account (No. 28, page 29).

December 8

Transaction No. 14

Quentin Durward pays his bill, No. 1662. As shown by the Sales Ledger the amount is $987.50, and this amount is entered in the Accounts Receivable credit column as a credit to Mr. Durward.

The total cash received, $967.75, is entered in the Cash debit column. The discount, $19.75, is entered in the Sales Discounts and Allowances column. Post to the customer's account in the Sales Ledger. As this is the only cash receipt of the day, it is deposited, and the amount is carried over into the Bank Deposit column.

Transaction No. 15

Job No. 1683 for Tristram Shandy is completed, and the Individual Job Summary is entered in the Sales Register. The cost and selling items, as well as the debit and credit entries to the General Ledger accounts, are entered as shown by the record in that book.

In the Order Book, the date, December eighth, is placed in the Date Billed column to show that job is finished and has been billed to the customer.

December 10

Transaction No. 16

Sydney Carton, President of the Company, renders a bill for selling expense, $76.50. Voucher No. 490 is prepared and entered in the Cash-Journal and Purchase Register. The debit is made in the special Selling Expense column, the credit in the Cash Credit column, while check, No. 372, and amount are entered in the Check columns. As both the debit and credit in this entry will be made to the General Ledger accounts through special column totals, a check mark (√) should be placed in the Folio column.

Transaction No. 17

A purchase is made from Henry Fielding, Ltd. Voucher No. 491 is prepared, and the entry is made in the Cash-Journal and Purchase Register. Henry Fielding, Ltd.,

and Accounts Payable are credited in the Accounts Payable credit column, while the several accounts shown by the entry (page 10) are debited through the special columns. Post to the creditor's account at once.

Transaction No. 18

Henry Esmond orders twelve thousand 64-page catalogues, size 9 x 12 inches, promised December thirty-first. The memorandum giving this information should be made in the Order Book.

December 11

Transaction No. 19

Job No. 1684 for Tom Jones has been completed, and has been billed out to the customer. The entry is made in the Sales Register (pages 17 to 18 inclusive) in accordance with previous instructions. In the Order Book a memorandum record is made in the Date Billed column, showing that the order has gone out to the customer.

Transaction No. 20

The Light bill for November is paid in cash. Voucher No. 492 is prepared and the amount, $12.30, is entered as shown in the Cash-Journal and Purchase Register (page 10).

December 13

Transaction No. 21

Job No. 1680 for Nicholas Nickleby is completed and entered in the Sales Register (pages 17 to 18) in accordance with previous instructions. A memorandum is made in the Order Book to show that the shipment has been made.

Transaction No. 22

The Payroll for the week ending December twelfth is made out as Voucher No. 493, and is paid in accordance with previous instructions. The entry is made in the Cash-Journal and Purchase Register (page 10), and a check mark (√) is placed in the Folio column.

Transaction No. 23

Quentin Durward orders seven thousand 4-page price-lists. The job is promised for December thirtieth. The memorandum should be made in the Order Book (page 47).

Transaction No. 24

A purchase of paper and bindery materials is made from the Rudyard Kipling Paper Company. Voucher No. 494 is prepared and entered in the Cash-Journal and Purchase Register in accordance with the instructions given above.

The bookkeeper should keep in mind, as has been said before, that these individual postings to customers and to creditors, and all other individual postings, including all items in the General Ledger columns, should be kept up from day to day.

December 15

Transaction No. 25

We have this date placed Don Quixote's bill in the hands of an attorney for collection. The third statement was sent the customer on November twenty-fifth, and no reply has been received. Many bookkeepers would make no record in the Book of Original Entry for a transaction of this kind; however, as the books of the business should be a complete record of the happenings of the business, a memorandum should be made in the Cash-Journal and Purchase Register (as shown at the bottom of page 10) recording the fact that the bill has been placed for collection. No amount, obviously, should be entered anywhere in the money columns for this transaction.

PROVING THE CASH-JOURNAL PAGES

Before proceeding further with the entries the bookkeeper should prove the Cash-Journal and Purchase Register, and should forward the same to the following page. It was explained early in the Treatise (see page 24 of Treatise) how the arithmetical accuracy of the entries made in this book should be proved, and it must be emphasized again that each page of the Cash-Journal and Purchase Register should be proved before being carried forward to the following page.

It will be found that the totals of the various debit columns and the totals of the various credit columns, exclusive of the "Factory Accounts Debits" columns, will be equal, and these footings should be entered on the "Brought Forward" line on the following page of the Cash-Journal and Purchase Register (page 11). The sum of the totals of the "Factory Accounts Debits" columns must equal the sum of the items in the Factory Accounts debit column which have been distributed to the special columns for the factory expenses. As stated previously, all items appearing in the Factory Accounts debit column, except the provision for reserve for overhead, will usually be distributed during the month to the factory distribution columns. Therefore, the total of the Factory Accounts debit column ($192.96), minus the monthly provision for reserve for overhead ($78.78), or $114.18, equals the sum of the totals of the distribution columns under "Factory Accounts Debits." The same method may be employed for proving these columns each time the Cash-Journal is forwarded to a new page.

Transaction No. 26

The November invoice for Power is paid by check. Voucher No. 496 has been made out and entered in the Cash-Journal and Purchase Register, as illustrated. Debit Power account (No. 27, page 29) in the General Ledger columns, and post at once to the ledger.

Transaction No. 27

The November bill for Advertising is paid by check, $105.00. Voucher No. 497 is prepared and the entry made in the Cash-Journal and Purchase Register. Advertising must be debited in the General Ledger debit column, and the amount should be posted at once to the ledger account (No. 32, page 30).

Transaction No. 28

We pay by check the invoice of November sixteenth, of the E. A. Poe Linotype Company. The amount of the invoice, $177.50, is entered in the Accounts Payable debit column as a debit to Accounts Payable and to the E. A. Poe Linotype Company (the latter in the Purchase Ledger), the amount of the cash, $173.95, in the Cash credit and in the Checks columns, and the cash discount of 2 per cent. in the Discount on Purchases credit column. Post at once the debit to the creditor's account. As illustrated before, the debits and credits in this transaction are equal, thus proving the equality of the double entry.

Transaction No. 29

The Lew Wallace Paper Company invoice of November eighteenth, for $720.00, is paid, less cash discount of 2 per cent. Enter in the Cash-Journal and Purchase Register as instructed for the above transaction (No. 28).

Transaction No. 30

We pay the invoice of Hawthorne & Company, dated November eighteenth, and amounting to $630.00, by giving them our note for the full amount of the invoice, less a 2 per cent. cash discount. The note is payable in sixty days and bears interest at the rate of 6 per cent. per annum. Inasmuch as our note bears interest, we are entitled to the cash discount, for the note is now worth approximately its face value if discounted at the bank. The debit to the creditor and the credit for the purchase discount are exactly the same as explained before. Notes Payable account will be credited for the face value of the note, $617.40, in the General Ledger credit column, and the amount will be posted individually to the credit of the Notes Payable account (No. 13, page 26) in the General Ledger (see fifth entry, page 11). Detailed description of the note should be made either in the Journal entry, or in some other accessory record. Post the items to the accounts designated.

Transaction No. 31

The receipted vouchers in the Petty Cash Drawer, amounting to $66.54, are entered as Voucher No. 498 and a check is drawn to reimburse the petty cash fund. The various expense accounts, as illustrated in the entry (see sixth entry, page 11) in the Cash-Journal and Purchase Register, will be debited, while Cash will be credited in the Cash credit column and the check, No. 379, will be entered in the Check columns. As all items affecting this transaction are listed in special columns, there will be no posting of any of the amounts individually. Therefore, a check mark (√) is placed in the Folio column opposite Petty Cash (see page 11). When this check, No. 379, is cashed and the money placed in the petty cash drawer the petty cash fund will be brought again to its original amount.

Transaction No. 32

The last installment of the Federal Income and Excess Profits Taxes, $778.60, is paid by check No. 380. The Liability for Taxes account is debited in the General Ledger columns, while the credit to Cash is entered in accordance with previous trans-

actions. Post the debit to the Liability for Taxes account (No. 19, page 27) in the General Ledger.*

Transaction No. 33

Paper is purchased from the Lew Wallace Paper Company, $657.50. The creditor (and the Accounts Payable account) is credited in the Accounts Payable credit column and paper is debited in the special Paper column for the amount of the purchase. The entry was made from Voucher No. 500. Post at once to the creditor's account in the Purchase Ledger.

Transaction No. 34

Dombey and Son settle in full their bill, No. 1663, amounting to $1,260.00. They give us their note for $1,000.00 payable in sixty days and bearing interest at 6 per cent. per annum. The balance, less a discount of 2 per cent. on the entire bill, is paid in cash. As this bill is paid within the credit period and the note of Dombey and Son bears interest, and could be discounted at the bank for approximately its face value (the slight difference being due to the fact that the bank would compute the discount on the face of the note plus the interest, or the "amount") the interest-bearing note is here considered, for illustrative purposes, the same as cash, and the customer is allowed the cash discount on the entire amount of the invoice. The entry will be made in the Cash-Journal and Purchase Register, debiting Notes Receivable for $1,000.00 in the General Ledger column, debiting Sales Discounts and Allowances for $25.20 in the special column, and debiting cash for $234.80 in the Cash column, while Dombey and Son will be credited for the $1,260.00 in the Accounts Receivable column. This makes a complete double entry and balances the indebtedness of Dombey and Son on account of bill No. 1663. Both the debit to Notes Receivable and the credit to Dombey and Son will require individual postings, which the bookkeeper should make as soon as possible.

Transaction No. 35

Tom Jones pays his bill No. 1661, amounting to $480.00, in cash, less a discount of 1½ per cent. The entry is made in accordance with previous instructions.

Transaction No. 36

The total receipts of cash for the day, amounting to $234.80 from Dombey and Son, and $472.80 from Tom Jones, are deposited in the bank. The total of the deposit, $707.60, is entered in the Deposit column of the Cash-Journal.

December 16

Transaction No. 37

Tristram Shandy ordered on December 14th three hundred Office Manuals, to be bound in board, and to be delivered by January fourth. The memorandum should be made in the Order Book, in accordance with previous instructions.

* In larger businesses, and in any case if desired, separate accounts may be carried to record the payment of property taxes (which are a charge against the manufacturing departments) and to record payment of income taxes (which are a direct charge against Loss and Gain).

December 17

Transaction No. 38

The note of Henry Esmond held at the beginning of the month is paid in cash. The amount of the check is for the face of the note, $1,200.00, plus the interest for sixty days at 6 per cent. The Notes Receivable account (No. 4, page 24) and the Interest Income account (No. 40, page 31) will be credited for the $1,200.00 and for the $12.00, respectively, in the General Ledger credit column, while Cash will be debited and will be deposited as previously explained.

December 18

Transaction No. 39

Express and drayage for the period, November fifteenth to December fifteenth, is paid by check. Voucher No. 501 is prepared and entered in the Cash-Journal and Purchase Register. The debit is made in the special Shipping and Deliveries column, while the credit to Cash and the check are entered in accordance with previous instructions. No individual posting being necessary, a check mark (√) will be placed in the Folio column opposite the Express and Drayage item.

December 19

Transaction No. 40

Job No. 1681 for Robinson Crusoe has been completed, and has been billed out as bill No. 1687. The Individual Job Summary has been entered in the Sales Register (pages 17 to 18 inclusive) in accordance with the previous instructions. Make the proper memorandum in the Order Book.

December 20

Transaction No. 41

The Payroll for the week ending December nineteenth has been prepared as voucher No. 502 and entered in the Cash-Journal and Purchase Register. The debit is made in the special Payroll column, while the credit to Cash and the check are entered as usual. The item is checked in the Folio column because there is no individual posting to be made.

Transaction No. 42

Oliver Twist pays $1,000.00 in cash on account of his bill, No. 1664. As this bill is subject to a 2 per cent. cash discount, we must credit the customer for more than the $1,000.00 of cash received. In other words, for every dollar that Oliver Twist owes the business, 98 cents in cash will settle the dollar's indebtedness. Therefore, the $1,000.00 of cash received will cancel as many dollars of indebtedness as 98/100 is divisible into $1,000.00. So, dividing the $1,000.00 by 98 cents, we ascertain that a credit of $1,020.41 must be made to Mr. Twist's account. The difference between the credit placed in the Accounts Receivable column and the amount of cash received, or $20.41, is debited to Sales Discounts and Allowances in that special column. Do not forget to post at once to the Sales Ledger account.

At this point the Cash-Journal and Purchase Register should again be proved to ascertain the arithmetical accuracy of the debits and credits, and the amounts should be forwarded to the next page of the book. These amounts, as previously explained, will be entered on the "Brought Forward" line (see top of page 12).

Transaction No. 43

Oliver Twist's order, dated December 17, has been received for twenty-five thousand sales tickets, to be delivered December thirtieth. Make the memorandum in the Order Book as previously instructed (see page 47).

Transaction No. 44

Henry Esmond pays his bill, No. 1665, in cash, less discount of 1 per cent. The entry is made in accordance with previous instructions.

Transaction No. 45

Silas Marner pays his bill, No. 1668, in full, less a cash discount of 2 per cent. The cash received during the day is deposited in the bank and the amount deposited is carried over into the Bank Deposits column.

December 22

Transaction No. 46

Supplies are purchased from the Wm. M. Thackeray Printers' Supply Company amounting to $132.00. Voucher No. 503 is prepared and the entry is made in the Cash-Journal and Purchase Register in accordance with previous instructions. The total charge to the Work in Process account, $75.83, is distributed to the various Factory operating accounts in the special columns under "Factory Accounts Debits."

Transaction No. 47

Robinson Crusoe's order, for twenty-four thousand 4-page advertising folders, has been received. The order is dated December twentieth, and is promised for December thirtieth. Make the memorandum in the Order Book as usual.

December 23

Transaction No. 48

Job No. 1682 for Dombey and Son has been completed, and has been billed out to the customer. The Individual Job Summary has been entered in the Sales Register (pages 17 and 18, inclusive), and the memorandum made in the Order Book, as explained in previous transactions.

Observe, that in the case of this bill, the Company actually received $75.80 less than it should have received in accordance with the regular selling rates. In other words, the total of material and departmental selling amounts, as shown in the Sell to Post column on the Individual Job Summary, No. 1682, is $75.80 more than the price received for the job. Therefore, the $75.80 is entered in *red ink* in the Sales Adjustment column. This shows that the job should have brought a little over $800.00, but either because of a mis-estimate or for some other cause the business has failed to receive the profit that it should have made.

December 24

Transaction No. 49

Nicholas Nickleby pays his bill, No. 1667, in cash, less a discount of 1 per cent. Enter in the Cash-Journal and Purchase Register, and deposit the cash in the bank as usual.

December 26

Transaction No. 50

Sydney Carton, President of the Company, renders an expense bill of $103.60. Voucher No. 504 is prepared and the entry is made in the Cash-Journal and Purchase Register as previously illustrated. The charge is made in the Selling Expense column and a check mark (√) placed in the Folio column, showing that no individual posting is necessary.

December 27

Transaction No. 51

Silas Marner orders twenty-five hundred catalogues, 6 x 9 inches, with cover. The order is dated December twenty-second, and the job is promised for January tenth. Make the memorandum in the Order Book as usual.

Transaction No. 52

The payroll for the week ending December twenty-sixth is prepared, and entered as Voucher No. 505 in the Cash-Journal and Purchase Register. Place the debit in the special Payroll column, and enter the cash as usual. Check (√) the item in the Folio column.

Transaction No. 53

Individual Job, No. 1686, for Quentin Durward has been completed and billed to the customer. The entry is made, as previously instructed, in the Sales Register, and the memorandum of shipment must be made in the Order Book. Post the debit to the customer's account in the Sales Ledger.

December 29

Transaction No. 54

We pay the Wm. M. Thackeray Printers' Supply Company vouchers Nos. 467 and 487 by check, less a discount of 2 per cent. The total of the vouchers is $525.70. Enter as previously instructed.

Transaction No. 55

Job No. 1689 for Robinson Crusoe has been completed and shipped as bill No. 1690. Enter in the Sales Register (pages 17 to 18, inclusive) in accordance with previous instructions. Remember that the figures for this transaction would be obtained from the Individual Job Summary, and that all figures, in practice, would be recorded there. Make the memorandum of shipment in the Order Book, as previously instructed.

Transaction No. 56

Tom Jones orders fifteen thousand 4-page folders. The order is dated December twenty-fourth, and is promised for January eighth. Make the usual memorandum in the Order Book.

December 30

Transaction No. 57

Job No. 1688 for Oliver Twist has been completed. Enter as usual in the Sales Register and make a memorandum of the shipment in the Order Book. Post the debit to the customer's account in the Sales Ledger.

Transaction No. 58

Paper has been purchased from Hawthorne & Company amounting to $407.50. Voucher No. 506 has been prepared and the entry has been made in the Cash-Journal and Purchase Register (see page 12). Debit the paper in the special column under "Material Debits."

Transaction No. 59

A purchase of supplies, amounting to $172.50, has been made from the E. A. Poe Linotype Company. Voucher No. 507 has been prepared and has been entered as previously explained. Remember to keep all individual postings made up to date.

Transaction No. 60

Tristram Shandy has paid in cash his bill No. 1669, less a discount of 1 per cent. The total amount of the bill is $850.00. Enter as usual.

Transaction No. 61

Silas Marner has paid $500.00 in cash on account of bill No. 1668. No discount is allowed. Enter in the Cash-Journal, debiting Cash and crediting Silas Marner for the amount paid. Post the credit to the customer's account in the Sales Ledger.

Transaction No. 62

Oliver Twist pays $500.00 on account of bill No. 1664, less a cash discount of 1 per cent. In other words, the check is for $495.00. Enter as usual.

Transaction No. 63

The total receipts of the day, amounting to $1,836.50, are deposited in the bank, and the amount of the deposit is carried over into the Bank Deposit column.

December 31

Transaction No. 64

Job No. 1685 for Henry Esmond has been completed. Enter the Individual Job Summary, in accordance with previous instructions, in the Sales Register (pages 17 to 18 inclusive), and make the memorandum of shipment in the Order Book.

Transaction No. 65

Nicholas Nickleby orders four thousand 12-page advertising folders. They are promised for delivery on January fifteenth. Make the memorandum entry, under date of December 30th, in the Order Book (page 47).

Transaction No. 66

The officers' salaries for December, amounting to $800.00, are paid by check. Voucher No. 508 is prepared and entered in the Cash-Journal and Purchase Register. The Salaries account is debited through the General Ledger columns. As the two officers of the Company, Mr. Henry P. Nelson and Mr. Sydney Carton, desire separate checks, checks Nos. 386 and 387 for $400.00 each are made out and entered in the Check columns.

Transaction No. 67

The clerical salaries for the month are paid in cash, $260.00. Voucher No. 509 is prepared and entered in the Cash-Journal. The debit is made to General and Office Expense in the special column and Cash is credited as usual (see entry, page 12). If desired, a separate account for Office Salaries may be debited through the General Ledger columns, and then this account closed into the General and Office Expense account. This is desirable only if the proprietor desires to have available the exact amount of this expense.

Transaction No. 68

The signed vouchers in the Petty Cash Drawer, amounting to $70.08, are entered as voucher No. 510, for the reimbursement of the Petty Cash Fund. Check No. 389 is drawn for the amount and cash is credited as usual. The charges are made, as would be shown by the distribution on the voucher, in the various special columns (as illustrated by the fourth entry from the bottom, page 12). As no individual posting is to be made, a check mark (√) is placed in the Folio column.

Transaction No. 69

Sydney Carton renders a salesman's expense bill for $28.60. Voucher No. 511 is prepared, and the entry is made in the Cash-Journal and Purchase Register, as previously explained.

Transaction No. 70

The Company's note for $5,000.00 is due. Voucher No. 512, authorizing payment of the same, is prepared, and a check is drawn for $5,050.00 in payment of the note and of the interest expense. The Notes Payable and the Interest Expense accounts are debited, respectively, in the General Ledger columns for $5,000.00 and for $50.00, the cash being entered as usual. The two debits must be posted individually to the designated accounts in the General Ledger.

Transaction No. 71

The December advertising is paid by check, $35.00. Voucher No. 513 is prepared, and the entry is made as previously illustrated.

Again the special columns of the Cash-Journal and Purchase Register should be totaled and the arithmetical accuracy of the book should be proved, as explained for previous pages. The amounts should then be carried forward, as shown on the "Brought Forward" line on page 13.

This completes the regular business transactions of the month, but numerous adjusting entries, distribution entries, and summary entries remain to be made. The bookkeeper should, therefore, proceed at once with these entries in preparation for making out the financial statements of the month and for determining the new hour cost as shown by Cost Form 9–H (pages 57 and 58).

POSTING THE SALES REGISTER

However, as all adjustment and closing entries are made in the Cash-Journal and Purchase Register, the Sales Register should now be totaled and posted to the General and Subsidiary Ledgers. Turn to the Sales Register (pages 17 to 18, inclusive) and total all columns appearing in that book. Then, beginning with the first column on page 17, the postings should be made as follows:

All individual items in the Accounts Receivable column, if not already posted, should be posted to the debit of the respective customers' accounts in the Sales Ledger. These postings should have been made when the Individual Job Summaries were entered in this book. The postings to the customers' accounts may be made directly from the Individual Job Summaries, if desired. The total of the Accounts Receivable column should be posted to the debit of that account (No. 3, page 24) in the General Ledger. The posting figure may be placed just below the total of the column. If any items appear in the General Ledger column, they should be posted individually (with the exception of Manufactured Stock, which should be checked (√), as previously explained) to the General Ledger accounts named, but the column would not be posted in total, for that would mean posting the same items twice, to the General Ledger.

Next, after having ascertained that the sum of the column totals under "Factory Ledger Credits" is in agreement with the sum of the totals of the Cost Completed Work Debit and Manufactured Stock Factory Cost Debit columns, post the totals of all the special materials' and departments' columns under "Factory Ledger Credits" to the credit of the respective accounts in the Factory Ledger. Place the posting figures immediately below the totals of the respective columns.

Next, post the total of the Cost Completed Work Debit column to the debit of the Trading account (No. 38, page 31), and to the credit of the Work in Process account (No. 6, page 25). Place the two posting figures immediately below the total of the column. If items appear in the Manufactured Stock Factory Cost Debit column, the total of the column must be posted to the debit of the Manufactured Stock account (No. 5, page 24) and credited to the Work in Process account (No. 6, page 25). The total of the Selling Charges Debit column should be debited to the Selling Charges account (No. 33, page 30) and should be credited to the Selling Expense account (No. 34, page 30), the credit, as illustrated, being carried over in total into the Selling Expense Credit column.

The totals of the next three columns (page 17B) under "Sundries" are not posted, so a check mark (√) is placed immediately below the respective column totals. The

total of the Sales column and of the Special Sales column, under "General Ledger Credits," is posted to the credit of the respective accounts in the General Ledger, and the posting figures are placed immediately below the column totals (see Sales Register, page 17B). The total of the Manufactured Stock Factory Sales column is checked (√), because this simply offsets the debits made to manufactured stock in the General Ledger column (page 17) under "General Ledger Debits," which debit amounts were also checked (√) and were not posted to the Ledger account. The individual items, both the debits to the Trading account and the credits to the accounts designated, in the General Ledger column (page 17B) under "General Ledger Credits" are posted to the accounts named in the explanation space. This completes the postings from the Sales Register, the column totals under "Distribution of Sales" (pages 17B and 18) being checked (√) in the respective columns to show that these are statistical figures only—none of them being transferred to the Ledger. In all cases the entire Sales Register should be proved, as previously explained (see page 28 of Treatise). The Sales Register should now be ruled up, when it is ready for the entries of the next month.

MONTHLY ADJUSTING ENTRIES

Transaction No. 72

The first adjusting entry to be made is to charge the Materials Direct accounts in the Factory Ledger and to credit the various Stock accounts in the General Ledger for the material requisitions of the month. These material requisitions should be obtained by the bookkeeper, or at least the amounts ascertained, and the entry made in the Cash-Journal debiting the Material Direct accounts in the Factory Accounts columns and crediting the Stores accounts in the General Ledger columns for the *cost* of materials used during the period. From the standpoint of correct costs it is entirely incorrect to requisition these materials out at present market values, for the cost of doing work is not dependent upon the present cost of materials but upon the actual cost of those materials when they were purchased. This does not mean that the customer should not be charged on the basis of present existing prices, but is to emphasize that true cost may be entirely independent of present market values, or of present selling prices. The completed entry is shown in the Cash-Journal and Purchase Register (see first entry, page 13).

Transaction No. 73

The bookkeeper must next ascertain the total wages cost of the month. It is immaterial whether these wages have been paid or not, for, as has been explained previously, the Wages account may show either prepaid wages or accrued wages at the end of the period. What the bookkeeper does want, therefore, is the total of the wages *earned* during the month in each of the several departments of the plant.* These amounts will be obtained from the payroll books, having been entered there from the daily time tickets of the workmen. This summary entry will be made in the Cash-Journal and Purchase Register (see second entry, page 13), the various plant operating accounts being debited in the Factory Accounts columns, the Shipping and Deliveries account being debited in the General Ledger column, while the Wages account is credited for the total earned wages of the period in the General Ledger column.

* It is the practice in some plants to close the books as of payroll date, thus avoiding division of the weekly payroll.

As explained previously in the Treatise (see page 72 of Treatise), it is desirable to have the operating accounts in the Factory Ledger show three separate items as making up the month's expenses. One of these items is the monthly provision for Reserve for Overhead. The second item is the Labor Cost of the period, while the third separate figure desired is the total of the burden or overhead expense of the month. To carry out this idea, the total wages expense of the period is debited to the departments individually in the Factory Accounts debit column, and will be posted as individual items to the various subsidiary accounts in the Factory Ledger. Obviously, if it had been desirable to do so, the total of the factory wages might have been entered in the Factory Accounts debit column, and then the wage cost of the individual departments could have been distributed in the departmental columns appearing at the right of the Cash-Journal and Purchase Register under "Factory Accounts Debits." This would have eliminated, however, the possibility of having the wages expense appear as a separate item in the respective operating accounts in the Factory Ledger.

In this connection, the bookkeeper should observe that the total of the amounts appearing in the distribution columns under "Factory Accounts Debits" now represents only direct materials and supplies, and these amounts will be entered on the Summary of Department Cost for Month (pages 57 and 58, line 11). But for the purpose of posting the total burden cost of the month to the Factory Ledger, the additional distribution of burden expense will be made to these columns before the columns are posted in total to the subsidiary accounts. It is the distribution of these various items of burden, or overhead expense, that the bookkeeper is now ready to take up.

Transaction No. 74

The distribution of the rent expense of the month, as previously explained, is based on the used square feet in the various departments. Of the $150.00 total rent and heat expense of the month, over five-sixths of it, or $125.70 is chargeable to the Factory departments. The total amount ($125.70) is entered as a debit in the Factory Accounts debit column, while the distribution is made to the various plant operating accounts in the special columns under "Factory Accounts Debits." This, again, well illustrates the principle of the controlling account, for the amount in the Factory Accounts column summarizes in total the distributed items in the special columns under "Factory Accounts Debits." See the third entry, page 13, of the Cash-Journal and Purchase Register.

Transaction No. 75

The total charge for depreciation, as shown by the Schedule of Fixed Charges for the month (page 55), is $346.67. This amount is credited to the Allowance for Depreciation account and is debited to the various accounts in accordance with the Schedule of Fixed Charges distribution, as shown by the next entry in the Cash-Journal and Purchase Register (page 13). $330.00 of the total amount is charged to the Factory Operating accounts and is entered in total as a debit to the Work in Process account (No. 6, page 25) in the Factory Accounts column. The distribution is made in the special columns under "Factory Accounts Debits."

Transaction No. 76

The interest on plant investment, as shown by the Schedule of Fixed Charges for the month, is $200.00, which amount is credited to the Reserve for Interest on Plant

Investment and charged to the various operating accounts. The method of entry is similar to that for depreciation given above (see fifth entry, page 13).

Transaction No. 77

The fire insurance cost, as shown by the Schedule of Fixed Charges for the month, is $50.00. This amount, which represents the amount of premium expiring during the month, is credited to the Insurance Prepaid account and is charged to the various departmental and general accounts. The entry is similar to that illustrated above for depreciation and for interest on the plant investment (see sixth entry, page 13).

Transaction No. 78

The property taxes, as shown by the Schedule of Fixed Charges for the month, amounts to $26.67. This is entered in the Cash-Journal and is distributed as explained for insurance above (see seventh entry, page 13).

Transaction No. 79

The total expense for Light for the month, as shown by that account (No. 26, page 29) in the General Ledger, is $12.30. This amount is distributed on the basis of light consumed, and the distribution is made, as shown by the Journal entry (page 13), similarly to the entries for the fixed charges.

Transaction No. 80

The Power cost of the month, as shown by that account in the General Ledger (No. 27, page 29) is $59.80. This is all chargeable to the Factory departments, in accordance with the power used in each department. The entry is made crediting Power in the General Ledger column and charging the Factory departments, as explained for the other charges of the month (see fifth entry from bottom, page 13).

Transaction No. 81

The amount of provision for spoilage for the period is $39.39. This is debited to the operating departments on the basis of cost for the previous month. In the illustration used here, this amount is assumed to be one-half of the opening provision for Reserve for Overhead, or, in other words, to be one-half of one per cent. of the previous month's departmental costs. The credit is made through the General Ledger column to the Reserve for Spoilage account (No. 24, page 28). The judgment of the individual printer must determine the spoilage provision necessary in each plant, and the amount may be increased or decreased as desired.

In this connection it must be emphasized again that when actual spoilage occurs, the cost of the work spoiled is to be debited to the Reserve for Spoilage account (No. 24, page 28). It would be incorrect, obviously, to treat both the monthly provision for spoilage and also the actual spoilage as costs of production. By means of the monthly provision the expense for spoilage is distributed evenly over the several monthly operating periods—a decided advantage, because it does not cause the variation in the monthly hour costs that a larger amount of actual spoilage in one particular month would cause.

Transaction No. 82

The total salaries of the month, as shown by that account (No. 30, page 29), are $800.00. As Mr. Henry P. Nelson is the General Manager of the plant, his $400.00 will be charged to the General and Office expense, while Mr. Sydney Carton's salary will be charged to Selling Expense, Mr. Carton being the salesman of the Company (see third entry from bottom, page 13).

Transaction No. 83

The total cost of advertising for the month, which is $140.00, is closed to the Selling Expense account. This is done by crediting the Advertising account in the General Ledger column and debiting Selling Expense in the special column (see the second entry from bottom, page 13).

Transaction No. 84

The provision for Bad Debts has been determined from past experience at about $40.00 per month. Therefore, this amount is charged to the General and Office Expense account (No. 29, page 29) and credited to the Allowance for Bad Debts account (No. 20, page 27), the entry being made at the bottom of page 13 of the Cash-Journal and Purchase Register.

The bookkeeper should again total all columns and prove the arithmetical accuracy of the Cash-Journal and Purchase Register, after which he will carry forward the totals to the "Brought Forward" line at the top of page 14.

Transaction No. 85

The total Shipping and Deliveries cost of the month is $95.41. $50.00 of this amount represents wages and appears in the Shipping and Deliveries account (No. 31, page 30), while the other $45.41, which appears in the Shipping and Deliveries special column, represents general supplies and has not yet been posted to the General Ledger account. The total, however, is ascertained and is closed into the General and Office Expense account, as shown by the entry in the Cash-Journal and Purchase Register (the first entry, page 14).

PREPARATION OF COST FORM 9-H

At this point it is perhaps most convenient for the bookkeeper to make out the Cost Form 9-H, or the Summary of Department Costs for the Month (pages 57 and 58). The total expenses, as called for by the accounts listed under the three subdivisions of Fixed Expense, Current Expense, and General Expense, are obtained from the accounts in the General Ledger and from the distributions just made in the Cash-Journal and Purchase Register (page 13). Thus the Rent and Heat item of $150.00 is obtained from the Rent and Heat account (No. 28, page 29). The other fixed charges should be taken from the Schedule of Fixed Charges of the month (page 55). All the items of current expense and of general expense may be obtained from the respective Ledger accounts, or more conveniently from the distribution entries in the Cash-Journal (see page 13).

The method of distributing these various expenses to the general and operating departments of the business is explained in the Treatise on the Standard Cost Finding

System (see Appendix C), and therefore it is unnecessary to go into great detail regarding the distribution of these items on the Summary of Department Cost. Upon the completion of the distribution of the fixed and current expenses, every single item of which may be obtained from the Cash-Journal distribution columns (page 13), all of the operating department columns are totaled (see line 16). It should be observed that the direct supplies and expense of the month is taken from the distribution columns under "Factory Accounts Debits," the amounts being those carried forward to page 13 of the Cash-Journal. The total of the General Factory Expense column (line 15) is then distributed on a percentage ratio (which in this case is 9.21 per cent.) to the Total Departments' Direct Expense (line 16). When this proportion of the general factory expense is added to the direct charges of the departments, the total Factory Cost of Departments is obtained (line 18).

The General Expenses are next distributed, as shown on the Summary of Department Costs. The Stock Handling and Selling columns are totaled, and the totals are distributed, respectively, as a percentage ratio to the Cost of Stock Used and to the Cost of Completed Work. This has been illustrated throughout the month's transactions on the Individual Job Summary (page 62) and in the entries made in the Sales Register (pages 17 and 18) for all individual jobs completed. The Shipping column is totaled and the total carried into the General Commercial column. As shown by the first Journal entry (page 14) the Shipping and Deliveries account (No. 31, page 30) is closed into the General and Office Expense account (No. 29, page 29). The General Commercial column is then totaled (line 31) and this total amount distributed on a percentage ratio (which in this case is 32.7 per cent.) to the Factory Cost of Departments (line 18). After this distribution is made, the Total Cost of Departments is obtained (line 33). The arithmetical accuracy of the distributions may now be tested by adding to the sum of the Total Cost of Departments the Selling expense and the Stock Handling expense, which total should equal the sum of the Total column (at the extreme left of the Cost Form 9–H).

The chargeable hours, as shown by the cost records (Standard Cost Finding forms Nos. 5 and 6), are now entered on the Summary of Department Cost sheet and the Cost per Chargeable Hour (exclusive of Stock Handling and Selling) for this month is obtained. This is then averaged with the Total Cost Per Chargeable Hour for the preceding eleven months to get the average hour cost to be used during the next month.* In case the system has not yet been in operation for a twelve months' period, this average cost must, of course, be for a shorter period of time. Oftentimes, due to considerable changes in the plant expenses, or due to the fact that the Cost System has been in operation for a very short time only, it is necessary, at the judgment of the proprietor, to use an arbitrary set-up cost rate somewhat above the average rate shown by the preceding months.

The Departments Factory Cost per Chargeable Hour (line 37) for the month is obtained by dividing the Factory Cost of Departments (line 18) by the chargeable hours in each department (line 34). The Total Cost Per Chargeable Hour (including Stock Handling and Selling) is obtained by distributing on a percentage ratio the Stock Handling and Selling Expense to the Factory Departments (in addition to the distribution of General Commercial expense already made), and dividing the total so

* This average hour cost is obtained for each department by dividing the total cost of the department for the period (exclusive of stock handling and selling) by the total productive hours of the period.

obtained by the Chargeable Hours in each department.* The Total Payroll Hours in each department should be obtained from the Payroll records kept in connection with the Cost System. The percentage of productive time (line 41) is then obtained by dividing the chargeable hours in each department (line 34) by the total Payroll Hours (total hours worked by hand producers in hand departments, and total possible hours of machines in machine departments) (line 40).

This Summary of Department Cost (or Cost Form 9–H) furnishes practically all information regarding the operating portion of the business that can be desired by the proprietors. As will be seen in the making of the closing entries of the month (Cash-Journal, pages 13 and 14), the information contained on this statement is most helpful and furnishes practically all the information needed in making the charges to the various Factory departments. Or, if those entries are made first, and in this the individual bookkeeper must use his own discretion, the Cash-Journal entries furnish practically all information necessary for preparing the Cost Form 9–H. In fact, if to the Total Cost of each operating Department (line 33) is added the opening provision for Reserve for Overhead, the exact figure is obtained which is shown in the Monthly Cost column on the Summary of Sales for the Year sheet (page 50). This shows conclusively how closely the Cost Records are related not only to the Books of Account but to the statistical records which are later prepared from the Books of Account and from the entries made therein. The satisfactory operation of either the Cost System or the Accounting System is practically impossible without the information furnished by the other.

Transaction No. 86

The General Factory Expense account has been debited $200.00 for wages and will be debited for $31.20 of supplies and expense when the total of the General Factory Expense column, under "Factory Ledger Debits," is posted. This total amount, $231.20, has been re-distributed to the Operating departments of the plant, as shown on Cost Form 9–H (line 17). This was done on a percentage basis, and now these amounts appearing on Cost Form 9–H must be carried by journal entry to the operating accounts in the Factory Ledger.

The amount appearing in the Factory Accounts credit column must be posted individually to the credit of the General Factory Expense account (No. 45, page 33) in order to balance that account; as this is the only time a credit entry is made to any Factory Ledger account when expenses are distributed to other Factory Ledger accounts, no credit distribution columns are provided. All credits to the Factory Ledger accounts are made either through the Sales Register or through the Factory Accounts credit column in the Cash-Journal and Purchase Register.

The amount appearing in the Factory Accounts debit column summarizes the distribution made to the operating accounts in the special columns under "Factory Accounts Debits." In other words, this debit amount simply summarizes in total the individual charges made to the Factory operating accounts, and, as explained previously, is simply a convenient way of making the distribution (see page 36 of Treatise). This distribution may always be taken from the Cost Form 9–H. In fact the Cost Form 9–H should be used continually in the making of these closing entries, and these

* In conformity with previous composite statements of cost issued by the United Typothetae of America, a gross hour cost, which includes Stock Handling and Selling expenses, has been provided (line 39) on the Summary of Department Cost in the Demonstration Book.

distribution entries should be very valuable in preparing the Cost Form 9–H. Both the debit and credit ($231.20) amounts find their way to the Work in Process controlling account (No. 6, page 25) through the totals of the Factory Accounts columns.

Transaction No. 87

The General and Office Expense account (No. 29, page 29) must next be closed. This account is charged for $897.44, as shown by the special debit column in the Cash-Journal (page 14). This amount has been distributed on Cost Form 9–H on a percentage ratio to the Factory Cost of Departments. Therefore, the amounts may easily be obtained from the Cost Form 9–H for debiting the Factory Ledger operating accounts, the Work in Process controlling account (No. 6, page 25), and for crediting the General and Office Expense account. The entry appears in the Cash-Journal and Purchase Register (see third entry, page 14).

POSTING THE CASH-JOURNAL AND PURCHASE REGISTER

This completes the distribution of the various expenses included in the Cost of Completed Work for the period. You may therefore post the books, and take a trial balance at this point. All columns in the Cash-Journal and Purchase Register should be totaled (see page 14), and the debit and credit amounts proved to be equal, as previously explained.

All individual items supposedly have been posted during the month to the respective accounts in the General or Subsidiary Ledgers. The items include (i) all amounts appearing in the Accounts Receivable columns, which should have been posted to the Sales Ledger, (ii) all amounts appearing in the Accounts Payable columns, which should have been posted to the Purchase Ledger, (iii) all amounts appearing in the Factory Accounts columns (except those amounts distributed in the special columns under "Factory Accounts Debits"), which should have been posted to the Factory Ledger, and (iv) all amounts appearing in the General Ledger columns, which should have been posted to the General Ledger accounts. All totals of the special columns, after the book has been proven in balance, should be posted to the proper accounts in the General Ledger, as designated by the column headings. The totals of the "Factory Accounts Debits" columns will be posted, of course, to the subsidiary accounts in the Factory Ledger.

The columns appearing under "Bank" are statistical only, and therefore no posting is made of these columns. A check mark (√) should be placed under the respective totals to show that the amounts are not to be posted. The totals of the Cash columns are posted to the debit and credit, respectively, of the Cash (Bank) account (No. 1, page 24) in the General Ledger, and the posting figure should be placed immediately below the totals in the respective columns. This posting figure provides an easy and ready method of reference in case the bookkeeper should desire, at any time in the future, to refer to these amounts that have been carried to the ledger account. Similarly, the totals of *all* the columns of the Cash-Journal and Purchase Register should be posted to the accounts named and to the debit or credit of the account, as designated, an exception being made in the case of the *totals* of the General Ledger columns. All items appearing in these columns, both debit and credit, have been posted individually to the proper accounts in the General Ledger and therefore the totals of the columns should not be posted. These columns are totaled only to assist

in proving the arithmetical accuracy of the book, and not for posting purposes. A check mark (√), as illustrated, should be placed under each of these totals.

When all of these columns have been posted, all entries appearing in the Books of Original Entry will have been posted to the General and Subsidiary Ledgers; therefore, the accounts in the General Ledger that are now in balance may be ruled up. These accounts are the Light account (No. 26, page 29), Power account (No. 27, page 29), Rent and Heat (No. 28, page 29), General and Office Expense (No. 29, page 29), Salaries (No. 30, page 29), Shipping and Deliveries (No. 31, page 30) and Advertising (No. 32, page 30). The reason these accounts balance is because they have been distributed over the Factory operating accounts, or have been closed into the Selling Expense account.

If a Trial Balance of "differences" is now prepared, it will appear as shown on page 40. This Trial Balance shows that the trading accounts of the business have not yet been closed, but that all of the manufacturing accounts, or all accounts affecting manufacturing costs in any way, with the exception of the Work in Process account (No. 6, page 25), have been closed, or adjusted.

As no additional entries will be made to any of the accounts in the Purchase Ledger, or in the Sales Ledger, all the accounts appearing in those two subsidiary books may be ruled up, in case the accounts balance, or may be balanced, and the balances will be carried down as the credit or debit balances to the following period. The accounts will appear as shown finally in the Purchase Ledger (pages 36 and 37) and in the Sales Ledger (pages 38 and 39). In the case of the Sales Ledger, it is possible that there may be other adjustments, for some of the accounts may be considered as uncollectible and may be written off to the Allowance for Bad Debts account (No. 20, page 27); in case other liabilities are discovered, adjustments will similarly be necessary in the Purchase Ledger.

In the case of Don Quixote's account, a question may arise in the bookkeeper's mind as to whether it should be written off or not, but, as no report has yet been received from the attorney into whose hands the account was placed for collection on December fifteenth (see memorandum, bottom of page 10), the account is left on the books in the hope that it possibly may yet be collected. If the account proves to be uncollectible, the Allowance for Bad Debts account (No. 20, page 27) should be debited and the Accounts Receivable account (No. 3, page 24) and Don Quixote's account (No. 73, page 39) should be credited. This would balance the customer's account and show it no longer as an asset of the business. In the detailed schedule of Accounts Receivable, it is oftentimes desirable to show separately the past due and doubtful customers' accounts.

As these Subsidiary Ledgers are balanced out as of the close of the period, the respective abstracts may be prepared as shown for the Purchase Ledger and for the Sales Ledger, respectively, on page 41 of the Demonstration Book. When the Accounts Receivable and Accounts Payable accounts in the General Ledger are balanced, the balances of those accounts will be in agreement with the total of the Abstract of Sales Ledger and with the total of the Abstract of the Purchase Ledger, respectively. In fact, the Trial Balance on page 40 shows that the respective Controlling accounts are in agreement with the subsidiary ledger abstracts.

COMPUTING THE WORK IN PROCESS

The next thing the bookkeeper must do is to compute the Work in Process in the various departments of the plant. Reference to the Order Book (page 47) and to the Individual Job Summary binder shows that Job Nos. 1687, 1690, 1691, and 1692 are in process of manufacture, but have not yet been completed and billed to the customers. The bookkeeper must take these incompleted Individual Job Summaries, therefore, and compute from them the number of hours of work done in each of the operating departments of the plant. The total number of hours of work done in each of these operating departments, as shown by all of the incompleted Job Summaries, multiplied by the set-up or used hour rate in the respective departments, is the Work in Process in the several departments. Thus, the number of hours of work done in the Hand Composition department, multiplied by the used hour rate as shown by the Cost Form 9–II prepared as of November thirtieth, will give the Work in Process item of $417.20. The same procedure for each operating department will give the Work in Process for the respective departments.

In the case of paper and other direct materials, each incompleted Individual Job Summary should record the cost of paper and other materials requisitioned to date for use on that job. These materials should be entered on the Individual Job Summary at the date they are requisitioned from the materials' stock, as illustrated on the Individual Job Summary (page 62) in the section for "Stock and Miscellaneous Purchases."

These amounts of Work in Process should then be carried directly to the various Factory accounts. Many bookkeepers prefer to write in these inventory items, or balances, in red ink. There is no objection in doing this, though there is no particular reason for doing it that way. The total of these work in process amounts, which will be shown as the balance of the Factory Ledger accounts on the Abstract of the Factory Ledger (page 41), because this work in process for each department actually represents the balance appearing in the respective subsidiary accounts at the end of the month, amounts to $1,768.33. This amount, which is the total work in process at the end of December, should be carried directly to the Work in Process account (No. 6, page 25) in the General Ledger as the total work in process of the plant. This represents, in reality, the adjusted balance of the Work in Process account carried forward to the next period (as is also the case for the subsidiary accounts in the Factory Ledger); it is not, obviously, a part of a journal entry—the Journal entry really consisting of the adjustments necessary to leave this amount as the balance of the Work in Process account.

BALANCING THE FACTORY LEDGER ACCOUNTS

Turning again to the Factory accounts, the bookkeeper should now ascertain if the debit and the credit sides of the accounts are in balance. This condition is found to exist for all of the Materials Direct accounts appearing on page 32 in the Demonstration Book. These accounts should, therefore, be ruled up and the Work in Process amounts carried down to the debit side of the accounts as the work in process at the beginning of the new month. It is obvious, undoubtedly, why these amounts are brought down on the debit side of the accounts. Take the Paper Direct account (No. 41, page 32) for specific illustration. On the debit side of the account appear items amounting to $3,249.36, and on the credit side of the account is the Cost of Completed Work item of $2,799.36; now, if this total credit were deducted from the total debits to

the account there would be a balance on the debit side of $450.00. It is this balance, or excess of the debit side of the account, which is really the Work in Process, and which is brought down on the debit side of the account as the balance carried forward to the following month. As shown in the ledger account, the work in process is placed first (oftentimes and by many bookkeepers in red ink) on the credit side of the account to balance the account, the amount then being carried down as the balance to the new period. Similar procedure with each of the Material Direct accounts will bring them into balance for December, and will show the inventories carried down to the new period. As previously explained, in practice a reserve for overhead adjustment will usually be found necessary for materials as well as for the plant operating accounts. The General Factory Expense account (No. 45, page 33) is already in balance. This account should be ruled up.

The Stock Handling Expense account (No. 46, page 33) lacks $13.82 of being in balance. The items appearing on the debit side of the account are $13.82 larger than the Cost of Completed Work and Work in Process appearing on the credit side of the account. This means that the costs charged on the Individual Job Summaries to customers for the month failed to absorb the actual expenses of the month; the difference, $13.82, must be credited to the account in order that it may be balanced. This is the Reserve for Overhead adjustment and the amount will be debited to the Reserve for Overhead account (No. 23, page 28) and credited to the Work in Process account (No. 6, page 25) and to the Stock Handling Expense account (No. 46, page 33). In fact, if a journal entry were to be made to adjust this account alone, it would show the credit made to both the subsidiary account in the Factory Ledger and to the controlling account in the General Ledger, viz.:

Reserve for Overhead	13.82	
To { Work in Process Stock Handling Expense }		13.82

However, an entry will not be made for each account separately, but the adjustment will be made in one entry for all of the subsidiary accounts appearing in the Factory Ledger. The bookkeeper should jot down on a working sheet, or ordinary sheet of journal paper, the $13.82 credit to be made to the Stock Handling Expense to adjust that account.

Following the same procedure for the Hand Composition account (No. 47, page 33) it will be found that a credit adjustment of $17.42 must be made to this account for Reserve for Overhead. In other words, the charges made to customers for work done in the Hand Composition Department failed by $17.42 to absorb the actual expenses of that department for the month. That is exactly what a credit adjustment means, and the bookkeeper will soon become so familiar with these Reserve for Overhead adjustments that he will instantly realize that a credit adjustment means an under-charge to customers for the department as a whole, and a debit adjustment an over-charge to customers. This procedure will be continued for each of the operating departments, the bookkeeper determining for each one whether any adjustment need be made, and, if so, whether the adjustment need be on the debit side of the account or on the credit side of the account. Mechanically speaking, all the bookkeeper need do is to add up the debits and the credits appearing in each account after the Work in Process item has been written in the account and take the difference between these totals as a Reserve for Overhead adjustment to the respective accounts. The adjustment, obviously, must

go on the smaller side of the account, so it is perfectly simple to determine whether it is to be a debit amount or a credit amount.

Upon the completion of this determination of the reserve for overhead adjustments for the various Factory Ledger accounts, the bookkeeper will make an entry in the Cash-Journal and Purchase Register similar to that shown on page 14 (fourth entry). As shown here, the Job Press and Medium Cylinder Press departments have debit adjustments, while the other operating departments all have credit adjustments. The net difference is a debit to the Reserve for Overhead account of $109.03. The total of the items appearing in the Factory accounts columns as debits and as credits, respectively, to the various departments will be posted to the Work in Process account (No. 6, page 25). If it were desired to show only the net results, the difference between the total of the debits and the total of the credits, or $109.03, could be posted to the Work in Process account, but if that were done the controlling account would not entirely summarize the transactions affecting the subsidiary accounts in the Factory Ledger. Therefore, the $38.87, representing the sum of the debit adjustments is posted to the debit of the Work in Process account (No. 6, page 25), while the $147.90 representing the sum of the credit adjustments to the various accounts is posted to the credit of the Work in Process account. As stated above, the difference between the total of the debits and the total of the credits, or $109.03, is debited to the Reserve for Overhead account. **This means that in all of the departments of the plant the amounts charged to customers for work done failed by $109.03 of absorbing the actual costs of the operating departments for the month.**

The bookkeeper will observe that all of these adjustment items, both debit and credit, are entered individually in the Factory Accounts columns. In this case it is more convenient to enter them as illustrated in the Cash-Journal (page 14), for no other items remain to be posted to the subsidiary accounts, and, in addition, the special columns under "Factory Ledger Debits" can be used only for debits to the subsidiary accounts, while in this case seven out of the nine items are credits to the respective operating accounts. Therefore, the subsidiary accounts must be debited and credited through the controlling account columns, just as items affecting the Sales and Purchase Ledgers are posted in detail through the Accounts Receivable and Accounts Payable columns, respectively.

Having posted this entry the bookkeeper is now ready to rule up all of the accounts in the Factory Ledger, and to bring down as the balance to the new period the Work in Process in the various departments. As previously explained, all of these items will be brought down to the debit side of the respective accounts and will represent assets of the business at the beginning of the next month. The Factory Ledger will now appear as shown in the Demonstration Book (pages 32 to 35, inclusive).

THE CLOSING JOURNAL ENTRIES

The bookkeeper is now ready to make the closing journal entries for the month. Reference to the Trial Balance (page 40) shows that certain of the trading accounts yet remain to be closed. The first entry to be made (although there is no absolute right or wrong order in making these closing entries) is to close the Sales Allowances and Discounts account into the Sales account. This is accomplished by the first Closing Entry shown (page 14). After this entry is posted (which should be done at once), the Sales account shows the net sales of the month. The only advantage of carrying the

separate account for Sales Allowances and Discounts is to be able to see at a glance the total gross sales, and the aggregate of this deduction from the gross sales of the month. The net sales should be closed next into the Trading account; this is accomplished by the second closing entry shown. This entry should be posted as soon as made, thus balancing the Sales account.

The Trading account may now be closed into the Loss and Gain account. This would show the gross trading profit closed into the Loss and Gain account. However, the next thing to be done here is to close the Selling Expense to the Loss and Gain account. The selling expenses of the month are now recorded in two accounts; the Selling Charges account (No. 33, page 30) recording the amount of selling expense actually absorbed by individual jobs, while the Selling Expense account (No. 34, page 30) records the unabsorbed or over-absorbed portion of the actual expense of the month. The third closing entry balances the two selling expense accounts. Four additional accounts yet remain to be closed: the Trading account, Discounts on Purchases, Interest Income, and Interest Expense. The fourth closing entry for the month shows these accounts closed into the Loss and Gain account. The posting of these four closing entries, each of which should be posted as soon as the entry is made to assure of no error in the final closing, closes all of the revenue accounts shown in the General Ledger. This last entry may be divided to make a separate entry for closing the Trading account.

As this is the end of the fiscal year, certain other entries may be necessary. For instance, the balance of the Liability for Taxes account, as explained previously (see page 43 of Treatise), should be closed at the end of the year to Loss and Gain. This is true also of the Interest on Plant Investment account, and so an entry "for the year" is made which closes these two accounts into the Loss and Gain account.

In case dividends are declared an entry debiting Loss and Gain account and crediting Dividends account (giving the number of the dividend declared) should be made. A similar entry, at the close of the fiscal period, closing the balance of the Loss and Gain account into the Surplus account, probably would be recorded in the books. Inasmuch as the possibility of declaring dividends has not been taken into consideration here, the Loss and Gain balance has not been closed into the Surplus account but has been left on the Ledger as a balance in that account (No. 17, page 27).

BALANCING THE GENERAL LEDGER ACCOUNTS

All of the entries of the period having been made in the Books of Entry, the bookkeeper is now ready to rule up the accounts in the General Ledger. Certain of the accounts, namely, Nos. 1 to 24, inclusive (except Nos. 19 and 22), will show balances to be carried forward to the following period. The remaining accounts (Nos. 25 to 40 and Nos. 19 and 22) should be in balance, and should show no balance to be carried forward to the new period. Upon the completion of balancing and of ruling up the ledger accounts, the bookkeeper's work in the actual Books of Entry has been completed, and he is ready to record the transactions of the following month. However, there yet remains the preparation of the Financial Statements of the month, and these the bookkeeper must now proceed to prepare.

PREPARATION OF STATEMENTS

The statement of Factory Operations (page 43) should be prepared first. The information for the preparation of this statement will be obtained from the accounts in the Factory Ledger (see pages 32 to 35, inclusive).

First, the month's cost of materials requisitioned should be obtained from the Material Direct accounts (page 32). It will be observed by the bookkeeper that the work in process for the Factory accounts is not recorded for each account on the Statement of Factory Operations, but that the Inventory of Work in Process, both at the beginning and at the close of the month, is recorded in total near the close of the Operating Statement. It is unnecessary here to follow through in detail the preparation of the Statement of Factory Operations. The reader, by comparing the figures shown on the Statement with the figures shown in the respective subsidiary accounts, should have no trouble in building up a similar statement from his own business.

In the material accounts the total costs of the month are represented by the requisitions of the month. In case the material accounts showed reserve for overhead adjustments, the debit adjustment would necessarily be added to, or the credit adjustment deducted from, the material requisitions in order to arrive at the charged cost of the period. In case of such reserve for overhead adjustments the materials accounts should show on the Statement of Factory Operations these adjustments in the same way as shown for the Stock Handling Expense and for the several operating departments. The reason for showing the Reserve for Overhead adjustment in each case has been explained previously (see page 58 of Treatise). In the operating departments the total charges of the month are represented by the total debits in the respective accounts as shown by the Factory Ledger, minus the opening inventory. In no case, obviously, is either the debit or credit closing adjustment to Reserve for Overhead to be considered in arriving at the departments' actual cost for the month. The reserve for overhead adjustment is then added to, or deducted from, the actual expenses of the month to arrive at the total charged cost in the various departments; this adjustment is shown, as illustrated, on the Statement of Factory Operations. By showing the reserve for overhead adjustment for each material and for each operating department, the statement definitely shows whether the used hour cost has been too high or too low to absorb the actual expenses of the period. This is exactly what the statement should show the proprietor. After obtaining the total cost for the month of material, labor, and overhead, the opening inventory of work in process is added to this amount. From the sum so obtained is deducted the closing work in process. The result is the Cost of Completed Work for the period.

If several kinds of work have been done during the month, that is, completed work for customers, manufactured stock, office supplies, advertising supplies, and perhaps factory departmental materials, an analysis of the completed work may be added to the statement of Factory Operations, viz.:

Cost of Completed Work		$6,543.99
Represented by:		
Cost of Sales	$5,988.60	
Cost of Mfg. Stock	470.29	
Office Supplies	85.10	

As shown in the Demonstration Book, the total cost of completed work ($6,543.99) represents the "cost of sales" because no work has been done on manufactured stock or for the office. The above illustration, therefore, is only to show the bookkeeper *how* the analysis should be made. In the above illustration, the "cost of manufactured stock" item would not appear in the Income Statement. Having completed the Statement of Factory Operations, the bookkeeper will next prepare the Income Statement.

THE INCOME STATEMENT

Turning to the Sales account (No. 36, page 31) in the General Ledger, the gross sales may be obtained. This account also shows, as a result of the closing journal entries, the total Sales Allowances and Discounts. The balance to this account in the General Ledger is the net sales of the period.

In case any special sales (account No. 37, page 31) or sales of salvage have been made during the month, these are added to the net sales to ascertain the net gross revenue of the period. From this amount is deducted the cost of sales (not necessarily the entire cost of completed work done), as just explained for the Statement of Factory Operations, to obtain the Gross Profit on Trading. From this amount the bookkeeper will deduct the Selling Expense of the month. As shown on the illustrative statement (page 44), it is well to show separately the amount of the selling expense absorbed by individual jobs, and the unabsorbed or over-absorbed amount. The net selling expense of the period is carried into the Current Month column. Deducting this total selling expense from the Gross Profit on Trading, the Net Operating Profit of the month is obtained. If there are no other items of income or of expense this amount is also the net profit of the period. However, in case other items of expense or of income do exist, the income should be added and the expense deducted from the net operating profit to obtain the Net Profit of the month.

The net profit, as shown by the Income Statement, should agree with the net change, aside from adjustments made for annual closing entries, etc., in the Loss and Gain account (No. 17, page 27). The bookkeeper may show an adjusting statement for the Loss and Gain account, and it would seem always desirable to do this. Such a statement appears appended to the Income Statement (page 44), and is as follows for the month's transactions shown:

Loss and Gain Account

Balance, December 1, 19—	$4,645.65
Adjustments by addition:	
Reserve for Interest on Plant Investment	2,400.00
Liability of Taxes unabsorbed balance	31.07
	$7,076.72
ADD: Net Profit for month ending December 31, 19—	1,062.05
Balance, December 31, 19—	$8,138.77

THE BALANCE SHEET

The Balance Sheet (page 45) should now be prepared. All open accounts appearing in the General Ledger must be included on this balance sheet, for these open accounts represent the present status of the business. As shown on the model form, the bookkeeper should always group the assets together to show (i) the current or liquid assets, which are those assets to be converted into cash in the ordinary course of business, (ii) the fixed investment in the machinery and equipment, and (iii) any items of prepaid expense which are usually shown as deferred assets.

It will be observed that the Allowance for Bad Debts (No. 20, page 27) and the Allowance for Depreciation (No. 21, page 28), which accounts stand on the General Ledger with credit balances, are deducted from the Accounts Receivable and from the Machinery and Equipment accounts, respectively, in order to show those assets at the net book value. From the total of the assets so obtained is deducted the total liabilities and reserves recorded on the books. The current liabilities should be grouped separately, and the total shown for comparison with the total current assets of the business. The relation of the current assets to the current liabilities is most important for credit purposes, for it is the ability of the business to pay its operating debts in the ordinary course of business which determines whether the business can long continue in operation. Both the Reserve for Overhead and the Reserve for Spoilage are provisions for anticipated or possible losses. But until those losses actually occur these accounts represent real surplus; however, as every business knows these losses will occur, it would not be conservative to show these amounts as a part of the proprietorship. The credits to these accounts should not be permitted to increase indefinitely and any amount in either account over a fair reserve to be kept should be closed to the Loss and Gain account, and any deficiency should be made up from it.

The total of the Liabilities and Reserves is deducted from the net Assets to determine the real proprietorship of the business. This is the fundamental equation at the beginning of the Treatise, namely, "Assets minus Liabilities equals Proprietorship." As there explained, this proprietorship in actual business is composed usually of several items; so here this excess of assets, or the proprietorship, is represented by the Capital Stock, the Surplus, and the Loss and Gain balances appearing in the General Ledger.

Upon the completion of these three statements, namely, the Statement of Factory Operations, the Income Statement, and the Balance Sheet, the bookkeeper has information to present to the proprietor, or to the manager of the business, which is worth an untold amount as an aid in the management of the Company. Therefore, the bookkeeper should prepare these statements as carefully and as legibly, and with the various accounts as correctly grouped, as it is possible to do.

THE SUMMARY OF SALES

The only thing remaining to be done on the transactions of the December month is to record on the Summary of Sales for the Year (page 50) the cost of work done and the sales for the various departments, and the gain or loss for each material and for each operating department for the month. All of the costs for this Summary will be obtained from the several accounts in the Factory Ledger. The opening inventories, as shown by the various accounts, will be entered in the Opening Inventory column. The monthly cost items will be the total debits made to each account during the month exclusive of any closing Reserve for Overhead adjustments. The Less Closing Inventory items, obviously, represent the closing inventories for the month. The Reserve for Overhead items are also taken from the Factory Ledger accounts, the credit adjustments being entered in the Reserve for Overhead column in red ink and the debit adjustments being entered in black ink. The net monthly cost for each material or department may then be obtained by taking from the sum of the Opening Inventory and Monthly Cost items the Closing Inventory item, and then deducting from this result the credit Reserve for Overhead adjustment, or by adding to this result the debit Reserve for Overhead adjustment. The amounts then shown in the Net Monthly Cost column

will correspond exactly with the totals of the various columns under "Factory Ledger Credits" (pages 17 and 17A) in the Sales Register. The monthly cost for selling must be obtained from the Selling Expense account (No. 34, page 30) in the General Ledger and this same amount is carried also into the Net Monthly Cost column. There is no opening or closing inventory for selling expense, unless it is definitely known that such expense is either prepaid or accrued.

The items appearing in the Sales column in the Summary of Sales are obtained from the respective columns under "Distribution of Sales" (pages 17B and 18) in the Sales Register. These items compared with the items appearing in the Net Monthly Cost column show the gain, or loss (in red), for each material and for each operating department of the plant. The total of the Sales Adjustment column (page 18) in the Sales Register which will be entered in the Sales column on the Summary of Sales for Year sheet, must also be carried over into the Gain or Loss column at the same figure, recording either a gain, or loss (in red), as shown by the column in the Sales Register. The net profit, or loss (in red), for the month will agree with the difference between the Loss column and Gain column under Sundries (page 17B, Sales Register), except for the over-absorbed or under-absorbed portion of the Selling Expense. This statement for the month shows the proprietor, statistically, the results obtained from each direct material and from each operating department in the plant. Perhaps no single accessory record will furnish information more valuable or more to be desired by the proprietor or manager of the business. In case the sections for the previous five months were also filled out, the bookkeeper would summarize the losses and gains in the "Total" Gain or Loss columns. This summary would only be made for a six months' period (see page 64 of Treatise).

PREPARING NEW SCHEDULE OF FIXED CHARGES

The transactions for the December month, and all records and statements in connection therewith, are completed. As this is the end of the year the bookkeeper will have to prepare for the new year a new Schedule of Fixed Charges for the ensuing Year (page 54) and for the Month (page 55). The method of preparing these Schedules has been fully explained previously in the Treatise (see page 65 of Treatise), and it is unnecessary at this point to enter into a detailed discussion of the preparation of these forms. The recording of the month's transactions in the books has demonstrated to the bookkeeper who is to use this system the desirability, if not the absolute necessity, of preparing this Schedule of Fixed Charges as an aid in the preparation of the Cost Form 9–H (pages 57 and 58), and as an aid in the making of the distribution entries in the Cash-Journal and Purchase Register.

CONCLUSION

We have now discussed in detail, not only the fundamental principles underlying a system of bookkeeping for the printing industry, but we have also discussed the individual books, the accessory records, and a classification of accounts, as parts of the Standard Accounting System. In addition, to assist the bookkeeper in comprehending the use of these books and records and accounts, a month's detailed transactions have been entered to illustrate the use of the books and the forms constructed.

The necessity of recording accurately and carefully all information concerning the business and the departments thereof has been emphasized again and again. The use of the Reserve for Overhead adjustment, which is the stabilizer of the business, and absorbs the difference between the actual cost and the set-up cost of the various materials used and in the various operating departments of the plant, the desirability of the distribution of sales, the Summary of the Monthly Sales for the period, and the use of the Schedule of Fixed Charges, have all been emphasized. In addition, it has been pointed out that the information obtained from the Statement of Factory Operations, from the Income Statement, and from the Balance Sheet, if these are all prepared in accordance with the forms and methods recommended, will give to the proprietor or manager of the business information such as few printing businesses in the United States have obtained up to the present time.

Little has been said in this Treatise concerning the Cost Records necessary to obtain the information to be recorded on the Individual Job Summary and in the Financial Books of Account (Payroll, Material Requisitions, Daily Time Tickets, etc.). It has been assumed that these records will be understood and will be used in the plants where the Standard Accounting System is adopted. A careful study of these Cost Forms (as explained in the Standard Cost Finding System, see Appendix C) should be made if they are not already familiar to the reader, for they are essential to the combined use of the Standard Accounting System with the Standard Cost Finding System.

It is believed that the Standard Accounting System will meet the requirements of the printing industry by providing not only a means for recording accurately all the financial transactions incident to the industry, but also by enabling the printer to obtain accurate statistical information regarding the condition and operation of each and every department of his business.

This knowledge, so obtained by the use of the Standard Accounting System, will enable the printer to direct the details of his business upon the basis of exact facts rather than upon uncertain information. The Standard Accounting System when combined and interlocked with the Standard Cost Finding System will supply these business facts so essential to the success of the printing industry.

APPENDIX A

GLOSSARY

In this Glossary are included the more important accounting terms appearing in the Treatise on the Standard Accounting System for Printers. Where possible, the general definitions recognized and sanctioned by the best accounting authorities have been used; however, many of these terms are peculiar to the printing industry, and have a meaning applying specifically to this system of bookkeeping and cost finding. In such cases, the terms have been defined in accordance with their use and meaning in this Treatise.

A

Abstract of Subsidiary Ledgers—a statement of the balances, either debit or credit, of the accounts in a subsidiary ledger, to show the subsidiary ledger in agreement with its Controlling Account in the General Ledger.

Accessory Record—a book or business record in which neither the original entry nor the final entry is made, but which supports or explains the entries made in those books. Oftentimes, the original documents of the business.

Account—a record of one or more items, either similar or dissimilar and usually arranged in chronological order, kept under an appropriate heading or title in the Ledger, and relating to one person, thing, or force.

Accounting—the science by which business or financial transactions are properly classified, recorded, analyzed, and interpreted for the purposes of management.

Accounting, Constructive—that branch of accounting including an analysis of the problems and needs of a business, the building up of a classification of accounts, the preparation of proper forms and records to obtain the needed information, and the giving of directions as to the use of the system produced.

Accounting, Cost—see Cost Accounting.

Accounting, Interpretative and Analytical—see Auditing.

Accounting, Recording—see Bookkeeping.

Accounts, Classification of—a mechanical arrangement of accounts, used by many accountants to group together the various kinds of accounts (asset, liability, proprietorship, income, expenditure, etc.) appearing in the Ledger; an arrangement of accounts to set forth clearly their purpose and relation to the business as a whole.

Accounts Payable—the controlling account for the Purchase (Creditors') Ledger, showing as a balance the total amount owed by the business to trade creditors.

Accounts Receivable—the controlling account for the Sales (Customers') Ledger, showing as a balance the total amount owed to the business by trade debtors.

Accrual—the act of accruing; that portion of an accruing account not yet due but applicable to the period under consideration.

Accrued Expense—a liability on account of expenses incurred but not yet due and paid.

Accrued Income—an asset account showing income earned but not yet due and received.

Administrative Expense—that part of the expense of conducting business incurred by the office, or administrative part of the organization, as apart from the producing and selling parts of the organization.

Allowance for Bad Debts—oftentimes called Reserve for Bad Debts. A provision made to anticipate losses from inability to collect customers' accounts. Usually deducted from the Accounts Receivable account on the Balance Sheet, to show that account at its net book value.

Appraisal—the result of a valuation of property or other assets, used mostly in connection with the valuation of fixed assets of a corporation.

Appraisal Adjustment—the book entries necessary to agree the Ledger accounts with an appraisal; the Ledger account reflecting the net change in the books to agree the book values with the appraised values of assets.

Asset—property, fixed or liquid; resources of any kind capable of being converted into money or value; that which may be used for the extinction of debts.

Asset, Current—that property, or resources of any kind, capable of being converted into Cash in the ordinary course of business. Oftentimes called "liquid" assets, because capable of being readily converted into cash for the payment of debts or for other business uses.

Asset, Deferred—an expense which has been expended for the benefit of future periods, and which will be chargeable to the operations of those periods.

Asset, Fixed—property purchased to place the business in a position to operate as a "going concern"; property capable of lasting over a series of processes of production.

Auditing—the analytical branch of accountancy (Montgomery). It includes an examination and inspection of the bookkeeper's work, the preparation of schedules and exhibits, recommendations concerning accounting and business methods, and an interpretation of all findings so as to be of greatest value for management purposes.

Average Hour Cost—see Cost, Average Hour.

B

Balance Sheet—a statement showing the financial position of a business at a specific date; statement of assets, liabilities, capital employed, reserves, and surplus (or deficiency, if such there be) of a business as of a specific date.

Bookkeeping—the systematic record of business transactions as they take place. Sometimes spoken of as the "recording" branch of accountancy.

Book of Final Entry—the book to which the business transaction is transferred, or posted, for final classification; a Ledger.

Book of Original Entry—the book in which the business transaction is first recorded. A Journal, Cash-book, Cash-Journal, Sales Register, etc.

Burden Expense—see Overhead.

C

Capital Accounts—the *real* or balance sheet accounts of the business, as contrasted with the *explanation* or income statement accounts (which are usually known as the Revenue accounts).

Capital Stock—the amount of share capital (issued or authorized) of a company or corporation; that part of the proprietorship of a corporation not included in its Surplus account, or in its Loss and Gain accounts.

Cash Book—a book of original entry used for recording cash receipts and cash disbursements only; a journal used to record cash transactions.

Cash Disbursements—cash payments made during a stated period, regardless of the purpose of the payment.

Cash-Journal and Purchase Register—the Form A recommended in the STANDARD ACCOUNTING SYSTEM FOR PRINTERS, and combining the ordinary Cash Book, Purchase Book (or Register), and Journal.

Cash Receipts—cash received during a stated period, regardless of the purpose for which received.

Chargeable Hours—the productive hours in each department; the hours worked in each department which are chargeable directly to specific orders for the time spent on those orders.

Charged Cost (of Departments)—the amount charged in each department, during a month or other given period, to the orders worked upon in that department; the total charges of a department made to orders at the set-up hour rate—even though that rate may vary from the actual cost per hour for work done in that department.

Classification of Accounts—see Accounts, Classification of.

Closing Entries—entries made in the books of account at the end of the monthly or fiscal periods for the purpose of closing the accounts.

Constructive Accounting—see Accounting, Constructive.

Controlling Account—a single account in the General Ledger which controls, or summarizes in total, a group of accounts in a subsidiary ledger. The controlling accounts illustrated in this system are Accounts Payable, Accounts Receivable, and Work in Process.

Cost Accounting—a branch of accounting which analyzes and records the cost of the various items of material, labor, and indirect expense (burden) incurred in the operation of a manufacturing plant, and which so compiles these elements as to show the total production cost of a particular piece of work. A somewhat broader term than cost-finding, which does not usually tie up the cost records with the books of account.

Cost, Average Hour—the hour cost obtained on the Summary of Department Costs for the Month (Cost Form 9–H) for each department by taking the total cost (exclusive of Selling and Stock Handling) of the department for the preceding twelve months and dividing it by the total productive hours of the department for the twelve months' period; the weighted average of each department's hour cost for the preceding twelve months' period.

Cost Completed Work—the total cost of work done in the manufacturing departments, exclusive of the cost of manufactured stock; the total cost of sales, and of work done for the office and for the factory (supplies).

Cost Form 2—see Individual Job Summary.

Cost Form 9–H—see Summary of Department Costs for Month.

Cost of Sales—that portion of the cost completed work which represents the cost of all work done for and billed to customers.

Cost, Set-up Hour—see Set-up Hour Cost.

Cost, Used Hour—see Used Hour Cost.

Credit—the word arising from the Latin term, meaning "he intrusts," and applied in double-entry bookkeeping to persons, property, or forces when these elements grant value to the business, or discharge a responsibility to the business; one-half of a journalization, or complete entry of a business transaction, and offsetting the debit part of the entry.

Current Asset—see Asset, Current.

Current Expenses—a subdivision of the expenses on the Cost Form 9–H, under which is grouped all expenses affecting the manufacturing departments which vary or change from month to month. These expenses include wages, light, power, spoilage, departmental direct supplies and expense, machine metal waste, and similar items.

Current Liability—see Liability, Current.

D

Debit—the word arising from the Latin term, meaning "he owes," and applied in double-entry bookkeeping to persons, property, or forces when these elements receive value from the business, or when they assume responsibility to account for certain values intrusted to them; one-half of a journalization, offsetting the credit part of the entry.

Deferred Asset—see Asset, Deferred.

Demonstration Book—the book accompanying this Treatise, and containing the books and records comprising the Standard Accounting System.

Department Used Cost—see Charged Cost of Departments.

Department Accounts—the accounts which cover the separate cost of and return from each operating department of any business.

Depreciation—the loss in value and efficiency of a fixed plant asset due to wear and obsolescence and the passage of time.

Depreciation, Allowance for—an account showing a credit balance and measuring the actual hole in the asset because of depreciation; a credit amount, representing the charge to operations for depreciation expense, to offset any deterioration of assets which has actually taken place. Oftentimes incorrectly called a Reserve for Depreciation.

Depreciation Fund—Cash or other assets actually set aside to provide for making good depreciation of plant, property, etc.

Depreciation, Reserve for—a setting aside of profits to take care of unforeseen or contingent depreciation, but being a figure over and above the actual estimated depreciation of the assets.

Direct Labor—that labor that enters into, and can be charged directly to, the product being worked upon; labor applied directly to the productive process (Nicholson).

Direct Materials—the substance, or material, out of which the product is made; the materials, or goods, actually going into any completed product.

Discounts on Purchases—a percentage deduction from the net amount of invoices of creditors because of payment within a given period.

Dividend Account—a controlling account in the general ledger of a corporation to which is credited the amount of the dividend on the day of declaration and to which are charged the checks issued in payment thereof, either *en bloc* or as they may be presented for payment.

Double Entry—that system of bookeeping by which the record of each business transaction is resolved into an equation, the two sides of the equation being known as the "debit side" and the "credit side," and always, in the aggregate, being equal; that method of recording business transactions by which responsibility is attached to one or more persons, properties, or forces (or to a combination of the same), while one or more other persons, properties, or forces are freed from or relieved of a similar responsibility.

E

Excess of Assets—the difference between the total assets of the business and the gross liabilities, which is the real proprietorship. The term is used especially in connection with the Balance Sheet.

Expense, Current—that portion of the expenses on the Cost Form 9–H affecting all departments of the business, which vary from period to period; the wages, light, power, repairs, direct supplies and expense, spoilage, and machine metal waste expenses as grouped on the Summary of Department Costs for the Month (Cost Form 9–H).

Expense, Fixed—the rent, depreciation, interest on plant investment, taxes, and insurance expenses as grouped on the Summary of Department Costs (Cost Form 9–H), and which do not vary from month to month.

Expense, General—that group of expenses on the Summary of Department Costs for the Month (Cost Form 9–H), which do not specifically affect any one department. This includes administrative salaries, general and office expense, selling expense, advertising, shipping and deliveries expense, and provision for bad debts.

Expense, General Commercial—that portion of all the expense of operating the business, as shown on the Summary of Department Costs for the Month (Cost Form 9–H), chargeable to general administration of the whole business; an account in the General Ledger entitled "General and Office Expense," which is charged (or debited) for such portion of all operating expenses as affect the administration of the whole business, and which is in turn closed into the Factory operating accounts as a percentage ratio to the direct cost of the departments.

Expense, Selling—that portion of all the expense of operating the business, as shown on the Summary of Department Costs for the Month (Cost Form 9–H), chargeable to selling; an account in the General Ledger which is debited for such portion of all operating expenses as affect selling (including Advertising) and which in turn is distributed on a percentage ratio to the cost of goods sold.

Expense, Stock Handling—that portion of all the expense of operating the business, as shown on the Summary of Department Costs for the Month (Cost Form 9–H), chargeable to the handling of materials; an account in the Factory Ledger which is debited for such portion of all operating expenses as affect the handling of materials and which in turn is distributed as a percentage ratio to the cost of materials used.

F

Factory Ledger—the subsidiary ledger containing the manufacturing, or the materials direct and departmental operating accounts of the business; Form C–1 as illustrated in the Standard Accounting System. This ledger is controlled, or summarized, by the Work in Process account in the General Ledger.

Factory Operations, Statement of—see Statement of Factory Operations.

Final Entry, Book of—see Book of Final Entry.

Financial Statement—a balance sheet; a statement, as of a given date, of the assets, liabilities, and net proprietorship of a business.

Fixed Asset—see Asset, Fixed.

Fixed Charges—see Expense, Fixed.

Fixed Charges, Schedule of—see Schedule of Fixed Charges.

Fixed Expense—see Expense, Fixed.

Folio Column—the column appearing in each book of original or of final entry in which is placed the page from which or to which each item is posted, and which serves as a cross-index for each entry recorded in the books.

Force Account—any account recording the source or cause of gain or loss; a revenue account; a loss or gain account.

G

General Commercial Expense—see Expense, General Commercial.

General Expense—see Expense, General.

General Factory Expense—that portion of all the expense of operating the factory, as shown on the Summary of Department Costs for Month (Cost Form 9–H), which cannot be charged directly to any department, but which must be distributed on a percentage ratio over the total departments direct expense; an account in the Factory Ledger which is debited for all factory expenses which cannot be charged directly to any department, and which is then closed to the factory operating accounts as above explained.

General Ledger—the main book of final entry; the ledger containing the Balance Sheet and the Income Statement accounts, at least in summary form, and including all the controlling accounts of the business.

Gross Trading Profit—the difference between the purchase or manufacturing cost of goods sold and the net selling price of the same goods.

H

Hour Cost, Set-up—see Set-up Hour Cost.

I

Income Statement—a periodical statement in which all the revenue and expenditure accounts of the business are arranged scientifically, usually to show separately the gross trading profit, the net operating profit, and the net profit for the period under review; a statement of profit and loss for the period considered.

Individual Job—a single manufacturing order, whether it be for a customer of the business, for supplies to be used in the office or in the factory, or for goods of any kind or any amount to be manufactured and placed in stock.

Individual Job Summary—the cost sheet or record for each individual job on which is recorded in detail and in summary the time worked (hand or machine), materials used, and all outside purchases for the order, to ascertain the total cost of producing the product; the Cost Form 2 as used in the Standard Accounting System.

Interest on Plant Investment—interest at the legal rate on the investment in each department, including the normal inventory of materials on hand, and which is to be included in the cost of production.

Inventory—a periodical schedule with cost prices attached, of materials, manufactured or finished stock, and work in process.

Invoice Book—a book oftentimes used for pasting in purchase invoices for goods bought, and used either as a book of original entry (a posting medium) or as an accessory record only. This book is largely replaced today by the Purchase (or Voucher) Register.

J

Job Summary, Individual—see Individual Job Summary.

Journal—a book of original entry; the book, either as a single book or separated into many books, in which all business transactions are originally recorded, and which serves as a posting medium to the Ledger, or book of final entry.

Journalization—the complete, systematic record of one business transaction, without regard to the book of original entry in which the record is made.

Journalizing—the act of recording business transactions in some book of original entry, determining the proper debits and credits to be made for each transaction.

L

Ledger—the book of final entry to which all items entered in any book of original entry are, properly classified, transferred; the book of accounts (Kester).

Ledger, Factory—see Factory Ledger.

Ledger, General—see General Ledger.

Ledger, Purchase—see Purchase Ledger.

Ledger, Sales—see Sales Ledger.

Ledger, Subsidiary—see Subsidiary Ledger.

Liability—obligations for which a person, firm, or corporation is bound; pecuniary obligations or debts.

Liability, Current—amounts owed subject to constant change, such as accounts payable to creditors, and usually becoming due and payable in short periods.

Liquid Assets—cash, and any assets which can be converted readily into cash; see Asset, Current.

Loss and Gain Account—the account which shows the net income, or the excess of revenue over expenditure, for a given period; the clearing account for the revenues and expenditures of the period, showing the net profit (or net loss) for the period under consideration.

M

Manufactured Stock—as used in the Standard Accounting System, the term applies to goods manufactured in quantities, such as labels, blank forms and books, posters, etc., and placed in stock, from which sales are made from time to time, and upon which additional work, such as imprintings, may or may not be done.

Materials Direct Accounts—the accounts in the Factory Ledger which record the value of each material requisitioned for manufacturing, the amount charged to completed jobs, and the value of the materials in the Work in Process at the beginning and close of the period.

N

Notes Payable—promissory notes or accepted time drafts bearing the name of the business, and which the business must pay at their maturity.

Notes Receivable—promissory notes or accepted time drafts payable to the business either as original payee, or through having been indorsed by another to the business.

O

Operating Profit (Net)—the net income of the period from the regular business operations, but before including either revenues or expenditures arising from incidental or external sources; as used in this system the Gross Trading Profit less the Selling Expense. Many times synonymous with Net Profit.

Order Book—an accessory record, designated as Form G in the Standard Accounting System, in which is recorded the orders as they are obtained. It usually contains a record of the customer's name and address, a brief description of the order, the date promised, and the date shipped or delivered; the book is not used in this system as a book of original entry.

Original Entry—the first complete, systematic record of a business transaction to be made in any bookkeeping form; refers to the entry made in a Book of Original Entry and not to a memorandum made in an Accessory Record.

Original Entry, Book of—see Book of Original Entry.

Overhead Expense—those elements of cost which cannot be assigned definitely to any particular order, or to any series of orders, but which are a part of the expense of manufacturing, and which must be taken into account in calculating costs.

Overhead, Reserve for—see Reserve for Overhead.

P

Petty Cash—a cash drawer fund established by setting aside a certain amount out of the regular Cash, and using this to pay small items of expense for which it is impracticable to draw checks.

Plant Account—as here used, the account which represents, through its debit balance, the cost value of the machinery and equipment of the business. The account, in its broadest meaning, may include land and buildings, or these various items are shown in several plant accounts.

Prepaid Expenses—see Deferred Asset.

Present Worth—the present net investment in a business, including the original investment and all profit realized from the conduct of the business; oftentimes, a term confined to a single proprietor or to a partnership, but applies in its broader sense to a corporation as well. See Excess of Assets.

Production Cost—the total factory cost of producing goods; as used in the Standard Accounting System, it corresponds to the cost of completed work.

Productive Hours—the total number of hours in each department, or in the entire plant, which are chargeable to the individual orders.

Profit, Gross Trading—see Gross Trading Profit.

Profit, Net—the credit balance remaining in the Loss and Gain account after all expenses of whatever nature, and all revenues, for the period under consideration have been accounted for; the balance of the Loss and Gain account when the same is a credit.

Profit, Net Operating—see Operating Profit (Net).

Profit and Loss Account—see Loss and Gain Account.

Proprietorship—the net equity of investors in a business; the excess of all assets over the total liabilities.

Purchase Book—a common book of original entry in which all purchases of merchandise are entered; the functions served by this book are performed in the Standard Accounting System by the Cash-Journal and Purchase Register (Form A).

Purchase Discounts—see Discounts on Purchases.

Purchase Ledger—the subsidiary ledger containing the detailed accounts with the trade creditors of the business; Form C–2 as illustrated in the Standard Accounting System. This ledger is controlled, or summarized, by the Accounts Payable account in the General Ledger.

Q

Quick Assets—see Asset, Current.

R

Record, Accessory—see Accessory Record.

Recording Accounting—see Bookkeeping.

Reserve Account—any account recording the setting aside of profits for some special purpose. The reserve may be used to offset actual losses, but until so used it represents an appropriation of profits.

Reserve for Interest on Plant Investment — an account in the General Ledger credited monthly for the current rate of interest on the plant investment and on the normal inventory of materials, and closed at the end of the fiscal year into the Loss and Gain account. The account shows the earning, at the current rate of interest, on the investment.

Reserve for Overhead—an account in the General Ledger which is used to adjust monthly fluctuations in manufacturing cost, and which absorbs for each material used and for each operating department the differences between the *set-up cost* and the *actual cost* of all work done. This adjustment shows by how much the set-up hour cost for the current month must be increased or decreased over the preceding month.

Reserve for Spoilage—an account in the General Ledger credited monthly for such an amount as will take care of the actual cost of the estimated spoilage.

Revenue Accounts—the loss and gain accounts relating to incomes and expenditures, as distinguished from capital accounts which relate to the assets, liabilities, and net proprietorship.

S

Sales—an account in the General Ledger which records the total sales made to customers during the month or period under consideration.

Sales Adjustment Column—a column to the right of the "Distribution of Sales" section of the Sales Register in this System, in which is recorded by means of black ink figures the extra profit on individual sales over the regular selling rates, and by means of red ink figures the amount by which the actual billed price of an individual sale is less than the regular selling rates.

Sales Book—a book of original entry used in many cases to record all sales made to customers. The function of the ordinary sales book is performed in the Standard Accounting System by the Sales Register (Form B).

Sales, Cost of—see Cost of Sales.

Sales Ledger—the subsidiary ledger containing the detailed accounts with the trade customers of the business; Form C–3 as illustrated. This ledger is controlled, or summarized, by the Accounts Receivable account in the General Ledger.

Sales Register—the book of original entry (Form B) recommended by the Standard Accounting System to record all sales made, the cost of goods sold and of goods going into manufactured stock, the credits to the several manufacturing accounts

for all work done in the plant, and the distribution of sales between the different materials and departments in proportion to the value of the work done.

SCHEDULE OF FIXED CHARGES—the form "J" recommended by the Standard Accounting System, and on which is furnished the detailed information necessary to charge to each manufacturing or general department of the business the department's proportion of the depreciation, interest on plant investment, insurance, and taxes of the period. This information is essential both in making the monthly debits to the various ledger accounts, and also in determining the productive-hour cost as shown on the Summary of Department Costs for Month (Cost Form 9–H).

SELLING CHARGES—the portion of the selling expenses actually absorbed in the charges to customers; the account in the General Ledger debited for the total selling expense which has been charged to customers on individual orders, this same amount having been credited to the Selling Expense account.

SELLING EXPENSE—see Expense, Selling.

SET-UP HOUR COST—the per-hour rate used in each operating department of the plant for making the cost charges to the individual orders worked upon in that department. While this more or less arbitrary rate may vary somewhat from the *average hour cost* obtained on the Summary of Department Costs, especially if that average hour cost is for less than a twelve months' period, it may oftentimes be desirable or necessary to vary even a twelve months' average hour cost because it is known that the production of the current month will be excessively large or unusually small. Generally, however, the *set-up hour cost* should approximate very closely the *twelve months' average hour cost.*

SOLVENCY—the amount of property of a business in excess of the already recognized claims (Cole).

SPECIAL COLUMN—the term applied to columns in any book of entry which are used for segregating items of the same kind, and which will be posted to one Ledger account.

SPOILAGE, RESERVE FOR—see Reserve for Spoilage.

STANDARD ACCOUNTING SYSTEM FOR PRINTERS—this system of bookkeeping adopted by the United Typothetae of America for use everywhere in printing plants.

STANDARD COST FINDING SYSTEM—the system of cost finding adopted by the United Typothetae of America for use primarily in printing plants.

STATEMENT OF FACTORY OPERATIONS—the form "E–1" recommended by the Standard Accounting System, and which gives a complete analysis of all materials used and of all work done in each of the operating departments of the plant during the month or period under review. The opening and closing inventory of work in process in the entire plant is also shown.

STOCK, CAPITAL—see Capital Stock.

STOCK DIVIDEND—the payment of a dividend, previously declared, in the stock of the company, instead of in cash or other property.

STOCK HANDLING EXPENSE—see Expense, Stock Handling.

STOCK, MANUFACTURED—see Manufactured Stock.

STOCK RECORD—a card or bound form on which a permanent record of the inventory is kept; a record kept with each kind of raw or finished product showing, in brief,

the amount at the beginning of a month or period, the amount purchased or manufactured during the period, the amount sold or used during the period, and the amount on hand at the close of the period. These records may show quantities only, or may show both quantities and cost prices.

SUBSIDIARY LEDGER—any ledger, the accounts in which are summarized, or controlled, by a single account in the General Ledger of the business.

SUBSIDIARY LEDGER, ABSTRACT OF—see Abstract of Subsidiary Ledger.

SUMMARY OF DEPARTMENT COSTS—the Cost Form 9–H illustrated in the Standard Accounting System, and used in the Standard Cost Finding System for arriving at the productive-hour cost of the month, the average-hour cost for the preceding twelve months' period, for showing the percentage of chargeable time in the various departments, and other cost information. This form is spoken of as the "keystone of the cost-finding system."

SUMMARY OF SALES FOR YEAR—the form H recommended in the Standard Accounting System to show in summary the total cost for each month of materials used and of each operating department, the total returns from these materials and operating departments, and the profit, or loss (in red), for each during the month under consideration. The statement will show also the total profit, or loss (in red), for each material or operating department for the six months' and twelve months' periods.

SURPLUS—the excess of net assets over total liabilities and capital stock; the accumulation of undistributed profits; the sum of the credit balances of all accounts, or of the one Surplus account, recording undistributed profits.

T

TRADING ACCOUNT—an account in the General Ledger designed to show the gross profit on trading, *i.e.,* the total excess of the net sales over the purchase or manufacturing cost of goods sold; an account to show the elements of net principal income.

TRIAL BALANCE—a table of the ledger accounts in double entry bookkeeping to show the total debits and total credits to be equal; a statement of total debits and total credits, or of debit balances and credit balances, to prove the arithmetical accuracy of the ledger postings.

U

UNDIVIDED PROFITS—usually the earnings or profits which have not been divided among the partners in a firm or the stockholders in a corporation.

USED-HOUR COST—the hour rate used during the month or period in making the cost charges to individual orders for the work done in each department; see Set-up Hour Cost.

V

VOUCHER CHECK—a check which contains, as part of the instrument, a statement of the invoices covered by the check.

Voucher Register—a book of original entry and of final entry in which all invoices and the distribution of the same are recorded. This book is not used in the Standard Accounting System, but its function is carried out by means of the Cash-Journal and Purchase Register (Form A) and the purchase ledger.

W

Work in Process—the incompleted work in process of manufacture in any manufacturing business; the cost of materials, direct labor, and overhead expended on incompleted work in process of manufacture.

Working Assets—all property available for carrying on a business, such as cash, accounts and notes receivable, and inventories, all of which may readily be converted into cash.

Working Capital—see Working Assets.

APPENDIX B

In this appendix is shown the adaptation of the Standard Accounting System for Printers to printing plants of small, medium, and large dimensions. The plants from which these forms were obtained are all operating the Standard Accounting System, and are carrying it out successfully in accordance with the principles and methods described in this Treatise. The character of the work done and the volume of output vary greatly in these plants—all of which proves the elasticity of the system of accounting here presented by the United Typothetae of America. The first two forms are approximately one-third actual size, and the remaining forms are about three-fifths the actual size of the books.

CASH—JOURNAL AND PURCHASE REGISTER

BANK			CASH		Date	Folio	ACCOUNTS	Voucher No	Accounts Receivable		Sales Discounts and Allowances	Accounts Payable		Discounts on Purchases	Factory Ledger		General Ledger	
Deposits	Checks																	
	Amount	No.	Dr	Cr					Dr	Cr.	Dr	Dr	Cr.	Cr.	Dr	Cr.	Dr	Cr.

This is the Cash-Journal and Purchase Register used in a medium-sized commercial printing plant doing an annual business of $100,000 to $125,000. It follows the form presented in the Demonstration Book, but has been adapted to the needs of this particular busi-

SALES REGISTER, COST OF FINISHED GOODS

GENERAL LEDGER DEBITS						FACTORY LEDGER CREDITS												General Ledger
Date	Job No	CUSTOMER	Folio	Accounts Receivable	General Ledger	Paper	Ink	Mac Purch		Hand Comp'n	Mechine Comp'n	Job Press	Job Press (Auto feed)	Cylinder No 6	Cylinder No 7	Cylinder No. 8	Cutter		Cost Completed Work

This is the Sales Register used in the above business doing approximately $125,000 of business annually. This business is so strategically located that it has no selling expense, all business coming unsolicited. Therefore, as there is also no manufactured stock produced, there is only one column under "General Ledger." The amounts in this column are com-

CASH—JOURNAL AND PURCHASE REGISTER

General of Office Expense Dr.	Shipping and Deliveries Dr.			MATERIAL DEBITS					FACTORY LEDGER DEBITS										
				Paper	Ink		Misc. Purchases		General Factory		Hand Comp'n	Machine Comp'n	Job Press	Job Press (Automatic feed)	Cylinder Press No. 6	Cylinder Press No. 7	Cylinder Press No. 8	Cutter	

ness. The factory departments, especially, do not correspond with those given for the illustrative transactions in the Demonstration Book. This book was giving the utmost satisfaction at the time of the preparation of this Treatise.

AND DISTRIBUTION OF SALES

SUNDRIES		GENERAL LEDGER CREDITS					DISTRIBUTION OF SALES													
Loss	Gain	Sales	Special Sales	Account	Folio	General Ledger	Paper	Ink	Misc. Purch.		Hand Comp'n	Machine Comp'n	Job Press	Job Press (Auto feed)	Cylinder No. 6	Cylinder No. 7	Cylinder No. 8	Cutter	Sales adjust.		Total

pared directly with the amounts in the several selling columns under "General Ledger Credits" to ascertain the profit or loss on each job, making the use of a Total column under "Sundries" unnecessary. Note how the presses have been subdivided according to size and kind of feed to give more accurate results for each.

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UNION TRUST COMPANY		
DEPOSITS	CHECKS	
	AMOUNT	NO

CASH—JOURNAL

for Month of _____ 19____

UNION TRUST COMPANY			CASH		DATE	Folio	ACCOUNTS	Voucher NO	Bill NO	Job NO.	GENERAL LEDGER		ACCOUNTS PAYABLE			ACCOUNTS RECEIVABLE						MATERIALS				COMPOSITION DEPARTMENT		COST COMPLETED WORK — DEBIT		SALES — CREDIT		GENERAL AND OTHER EXPENSE	FACTORY EXPENSE	DISCOUNT ALLOWED CHASE
DEPOSITS	CHECKS		DEBIT	CREDIT							DEBIT	CREDIT	DEBIT	CREDIT		COMPOSITION.	METAL, DEBIT		COMPOSITION.	METAL, CREDIT		METAL		MISCELLANEOUS PURCHASES				METAL	COMPOSITION	METAL	COMPOSITION			
	AMOUNT	NO														DEBIT	LBS	AMOUNT	CREDIT	LBS.	AMOUNT	DEBIT	CREDIT	DEBIT	CREDIT	DEBIT	CREDIT					DEBIT	DEBIT	CREDIT
							Brought forward																											

	DATE		EXPLANATION	FOLIO	DEBITS			CREDITS		
					COMPOSITION	METAL		COMPOSITION	METAL	
						Lbs.	Amount		Lbs.	Amount

This is the sole book of original entry in a small trade composition plant doing approximately $30,000 to $35,000 of business annually. The system has been in operation for some time, and is giving admirable results. The Accounts Receivable columns are so subdivided as to record both the charge for the machine composition and for the metal. Provision is also made to record the pounds of metal sent out. The credit columns correspond to the charges, the customer being credited in the Composition column when he pays for his composition (the corresponding debit being made to Cash), and in the metal columns when he either returns the metal or when he pays for it, or both. Materials are debited for the cost of materials purchased, and are credited for requisitions, etc., at cost price. The Composition Department (which is here the manufacturing plant) is debited with all the expenses of operation. It is credited for the cost of completed work (in this case, exclusive of metal), which amount is debited in the Composition column to Cost of Sales. The value of the pounds of metal used in the job is also debited to the Cost of Sales (Metal), and credited to the Material account. The Sales accounts are credited through the Sales columns, the metal showing a profit or not as determined by the proprietor. The final columns need no explanation. This book gives all information necessary for the successful conduct of this business, and gives it in a very usable form.

This is the customers' or Sales Ledger form used in connection with the above trade composition business. It may be used either as a card or as a loose-leaf or bound book. The columns correspond to the Accounts Receivable columns in the book of original entry. The customer's name and address, together with any other essential information, appear at the top of the form.

CASH JOURNAL and PURCHASE REGISTER

BANK			CASH		Date	Folio	Accounts—Explanation	Voucher No.	Accounts Receivable		Sales Allowances and Discounts	Accounts Payable		Discounts on Purchases	General Ledger		Pay-Roll	Officers' Salaries	Office Salaries	General Office Expense	Freight and Cartage In		Selling Expense	Advertising			MATERIALS' DEBITS								Miscellaneous Purchases
Deposits	Checks Amount	Checks No.	Dr.	Cr.					Dr	Cr	Dr	Dr	Cr	Cr	Dr	Cr.	Dr.	Dr.	Dr.	Dr.	Dr.		Dr.	Dr.			Paper	Ink	Bindery Materials	Electrotyping	Engravings	Mdse Postage Post Cards Stamped Envelopes	Wrapping Paper and Twine		
							Amounts brought forward																												

CASH JOURNAL and PURCHASE REGISTER

FACTORY CONTROLLING ACCOUNTS						FACTORY LEDGER DEBITS																																									
COMMERCIAL DEPARTMENT		PUBLICATION DEPARTMENT		BRANCH PLANT		Commercial Department												Publication Department												Branch Plant																	
Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	General Factory	Stock Handling	Hand Composition	Job Press	Cylinder Press	Cutter							General Factory	Stock Handling	Copy Preparation	Hand Composition	Monotype	Large Cylinder Press	Medium Cylinder Press	Small Cylinder Press	Hand Bindery	Machine Bindery	Cutter	Mailing			General Factory	Stock Handling	Hand Composition School	Hand Composition Book	Linotype	Monotype	Large Cylinder Press	Medium Cylinder Press	Hand Bindery	Machine Bindery	Cutter					

This Cash-Journal and Purchase Register is being used by a large plant doing approximately $500,000 of business annually. In addition to keeping entirely separate a job department and a publication department, this business operates a branch plant doing some commercial work and a large amount of technical and scientific book work. A separate Profit & Loss statement is prepared for each of these three divisions. Observe that while the principle on which the book was designed corresponds exactly to the Form A shown in the Demonstration Book, provision has been made for three controlling Work in Process accounts in the General Ledger, and for three separate groups of accounts in the subsidiary or Factory Ledger. The book was designed with a short leaf between full-size pages (as illustrated for the Form B in the Demonstration Book).

CASH—JOURNAL

CASH															
DEBIT	CREDIT	DATE	Folio	ACCOUNTS	Voucher NO	Bill NO	Job NO.	GENERAL LEDGER		ACCOUNTS PAYABLE		
								DEBIT	CREDIT	DEBIT	CREDIT	
				Brought forward								

book of original entry in a small trade composition plant doing approxi-
:5,000 of business annually. The system has been in operation for some time,
rable results. The Accounts Receivable columns are so subdivided as to
rge for the machine composition and for the metal. Provision is also made
ds of metal sent out. The credit columns correspond to the charges, the
lited in the Composition column when he pays for his composition (the
t being made to Cash), and in the metal columns when he either returns
he pays for it, or both. Materials are debited for the cost of materials
· credited for requisitions, etc., at cost price. The Composition Depart-
e the manufacturing plant) is debited with all the expenses of operation.
ıe cost of completed work (in this case, exclusive of metal), which amount
omposition column to Cost of Sales. The value of the pounds of metal
ılso debited to the Cost of Sales (Metal), and credited to the Material
·s accounts are credited through the Sales columns, the metal showing a
ermined by the proprietor. The final columns need no explanation. This
·mation necessary for the successful conduct of this business, and gives
form.

Date	Bill No.	Jo No

CASH-JOUR

	General and Office Expense	Shipping and Deliveries	MATERIALS DEBITS						
	Dr	Dr	Paper	Ink	Bindery Materials	Misc Purchases	Mds Postage Post Cards Stamped Env		General Factory

chase Register used in a large plant doing more
e operating departments of this business are housed
distance apart, and many of the departments are
es. The book follows very closely the Cash-Jour-
shown in the Demonstration Book, and has given
The proprietor of this business is an enthusiastic
hetæ of America has here done. The Sales Reg-
ntal divisions shown in the Cash-Journal and Pur-

SALES REGISTER and COST OF COMPLETED WORK

| GENERAL LEDGER DEBITS | | | | | | | FACTORY LEDGER CREDITS | | | | | | |

CASH-JOURNAL AND PURCHASE REGISTER

BANK			CASH		Date	Folio	ACCOUNTS	Voucher No	Accounts Receivable		Discounts and Allowances on Sales	Accounts Payable		Discounts on Purchases	General Ledger		Work in Process		
CHECKS																			
Deposits	Amount	No.	Dr.	Cr.					Dr	Cr	Dr	Dr	Cr	Cr	Dr	Cr	Dr	Cr	
							AMOUNTS BROUGHT FORWARD												

CASH-JOURNAL AND PURCHASE REGISTER

General and Office Expense	Shipping and Deliveries	MATERIALS DEBITS						FACTORY LEDGER DEBITS													
Dr	Dr	Paper	Ink	Bindery Materials	Misc Purchases	Mdse Postage Post Cards Stamped Env		General Factory	Stock Handling	Hand Comp'n	Machine Comp'n	Job Press	Cylinders Medium	Cylinders Large	Rotary Press	Cutting	Bindery Machines	Bindery Hand	Mailing	Electrotyping	

This is the Cash-Journal and Purchase Register used in a large plant doing more than $1,200,000 of business annually. The operating departments of this business are housed in two buildings situated a considerable distance apart, and many of the departments are several times subdivided for cost purposes. The book follows very closely the Cash-Journal and Purchase Register (Form A) shown in the Demonstration Book, and has given admirable results in this large business. The proprietor of this business is an enthusiastic booster for the work the United Typothetæ of America has here done. The Sales Register, which corresponds to the departmental divisions shown in the Cash-Journal and Purchase Register above, is not shown.

CASH

DEBIT | CR

NAL AND PURCHASE REGISTER

FACTORY LEDGER DEBITS												
Stock Handling	Hand Comp'n	Machine Comp'n	Job Press	Cylinders Medium	Cylinders Large	Rotary Press	Cutting	Bindery Machines	Bindery Hand	Mailing	Electrotyping	

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MISCELLANEOUS FORMS

Where a business is so large, as in the case of the $1,200,000 business mentioned above, that a number of bookkeepers are required, it may be desirable, or necessary, to separate the Cash-Journal and Purchase Register into three separate books. These three books may be still sub-divided into any number of books most convenient for the making of the bookkeeping entries. This enables more people to work on the books at the same time. The three following forms show the separate Cash Book, Purchase Register, and Journal, which forms taken together will be seen to correspond very closely to the Cash-Journal and Purchase Registers before shown. The use of the single book of original entry is always to be recommended unless the amount of bookkeeping labor necessary makes it imperative to have the separate books.

NOTE: In case any business operating the Standard Accounting System desires to do so, all work done in the operating departments of the plant may be debited to a "Finished Stock" account. This would be accomplished most satisfactorily by having two columns under the "General Ledger" section of the Sales Register (see the Demonstration Book, page 17A) entitled Finished Stock, and Cost of Sales, respectively. As all work is completed (regardless of whether it be work done for customers, manufactured stock for the shelves, office supplies, factory and advertising supplies, etc.) the total cost of the work done will be entered in the Finished Stock column. At the end of the month, or other period, the total of this column will be posted to the debit of the Finished Stock account in the General Ledger, and to the credit of the Work in Process account (No. 6, page 25) in the General Ledger.

If the work is being billed at once to customers, or if it is supplies for the plant, the cost of the work will be entered (at the same time it is entered in the Finished Stock column) in the Cost of Sales column also. At the end of the month, or other period, the total of this Cost of Sales column will be posted to the debit of the Trading account (No. 38, page 31), and to the credit of the Finished Stock account. The balance of the Finished Stock account would then represent the cost value of finished or manufactured stock on hand, and would be the same as the balance of the Manufactured Stock account (No. 5, page 24) in the Demonstration Book.

This would eliminate from the Sales Register (see page 17A) the Cost Completed Work and Manufactured Stock Factory Cost debit columns, and would substitute the Finished Stock and Cost of Sales debit columns in their stead. Either the method described in the Treatise or the method referred to in this note may be used satisfactorily by any business operating the Standard Accounting System for Printers.

CASH RECEIPTS

DATE 19—		ACCOUNT: DESCRIPTION	Folio ✓	CREDITS: Accounts Receivable	CREDITS: General Ledger		DEBITS: Discounts	DEBITS: Cash	SUNDRIES: Balance	SUNDRIES: Bank Deposits
Jan.		AMOUNTS BROUGHT FORWARD								
	1	Balance							3 6 8 0 00	
		Field-Pratt Co.		6 6 2 70				6 6 2 70		6 6 2 7
	15	Glenwood Mfg. Co.		3 5 0 0 00				3 5 0 0 00		
		C. D. Bruce		5 0 00			50	4 9 50		3 5 4 9 5
	28	S. Y. Taylor		4 2 5 25			4 25	4 2 1 00		4 2 1 0
	31	(3) Accounts Receivable Credit	31	✓ 4 6 3 7 95						
	31	(27) Discounts Debit	37	✓			4 75			
	31	(1) Cash Debit	31	✓				4 6 3 3 20		
									4 6 3 3 20	
									8 3 1 3 20	
Feb	1	Balance							1 6 6 1 84	
		AMOUNTS CARRIED FORWARD								

CASH DISBURSEMENTS

ACCOUNT						DEBITS			CREDITS		SUNDRIES
DATE 19—	DESCRIPTION	Voucher No.	Check No.	Folio	✓	Accounts Payable	Wages	General Ledger	Discounts	Cash	Bank Withdrawals
Jan.	AMOUNTS BROUGHT FORWARD										
5	Bowen Hdw. Co.	903	4163			120 00			2 40	117 60	117 60
7	Pay-roll end, Jan. 6	904	4164		√		1001 10			1001 10	1001 10
9	Brown Mfg. Co.	905	4165			179 01				179 01	179 01
14	Pay-roll end, Jan. 13	906	4166		√		966 03			966 03	966 03
19	J. D. Burns, Atty.	913	4167			130 00			2 60	127 40	127 40
21	Pay-roll end, Jan. 20	912	4168		√		984 76			984 76	984 76
27	Standard Paper Co.	919	4169			954 10			19 08	935 02	935 02
	Union Board & Paper Co.	921	4170			122 50			2 45	120 05	120 05
	C. E. Spofford, Agt.	924	4171			166 67				166 67	166 67
28	Pay-roll end, Jan. 27	925	4172		√		998 72			998 72	998 72
31	(31) Salaries—Officers	930	4173	38	√			500 00		500 00	500 00
	(31) Salaries—Clerical	931	4174	38	√			250 00		250 00	250 00
	(37) Selling Exp.—Salaries	932	4175	40	√			285 00		285 00	285 00
	(37) Selling Exp.—Traveling	933	4176	40	√			20 00		20 00	20 00
31	(13) Accounts Payable Debit			34	√	1672 28					
31	(14) Wages Debit			34	√		3950 61				
31	(27) Discounts Credit			37	√				26 53		
31	(1) Cash Credit			31	√					6651 36	
	Balance, Jan. 31									1661 84	
										8313 20	
	AMOUNTS CARRIED FORWARD										

PURCHASE REGISTER

CREDITS							GENERAL LEDGER						
DATE 19—		Voucher No.	PAYEE	Folio	Accounts Payable	General Ledger	Name of Account	General Ledger	Paper Account	Ink Account	Bindery Materials Account	Miscel. Purchases Account	General Expense
Jan.			AMOUNTS BROUGHT FORWARD										
	1	901	Eagle Oil Co.		22 20								
	2	902	Printers Roller Co.		8 60								
		903	Bowen Hdw. Co.		120 00								
		905	Brown Mfg. Co.		179 01								
	5	907	Commonwealth El. L. & P. Co.		5 26		Light	5 26					
		908	City Gas Co.		18 20								
	7	909	Commonwealth El. L. & P. Co.		8 06		Power	8 06					
		910	Butler Supp. & Repair Co.		27 30								
	8	911	U. S. Telephone Co.		55 90								55 90
	12	913	J. D. Burns, Atty.		130 00								130 00
	15	914	Peters Stationery Co.		3 12								
		915	Brooks Advertising Co.		7 00								
		916	Howell Co.		5 00								
	18	917	Bowen Hdw. Co.		5 90								
		918	Merchants Transp. Co.		3 19								
		919	Standard Paper Co.		95 41 0				95 41 0				
	21	920	Globe Ink Co.		4 20					4 20			
	25	921	Union Board & Paper Co.		122 50						122 50		
		922	Howe Typesetting Co.		4 80							4 80	
		923	Spring & White		3 25		Insurance	3 25					
	26	924	C. E. Spofford, Agt.		166 67		Rent	166 67					
			Totals to Journal, folio 23		2301 26				95 41 0	4 20	122 50	4 80	185 90
			AMOUNTS CARRIED FORWARD										

AND DISTRIBUTION

DEBITS					FACTORY LEDGER DEBITS										
Office Expense	Shipping and Deliveries	Advertising	Selling Expense		General Factory Expense	Stock Handling Expense	Hand Comp. Expense	Mach. Comp. Expense	Job Press Expense	Small Cylinder Expense	Medium Cylinder Expense	Cutting Mach. Expense	Mach. Folding Expense	Bindery Small Mchs. Expense	Bindery Hand Work Expense	
									3 92	2 14	1 6 13					
									1 6 10	1 9 30	4 5 26					
						2 2 12	3 8 1	4 25	3 8 02		1 7 56					
					1 1 8 40						3 7 33	8 67	2 21	1 19	1 1 19	
								1 8 20								
								2 40			2 2 10			2 80		
3 5 12																
		7 5 00														
			5 00													
	5 90															
	3 2 19															
3 5 12	3 8 09	7 5 00	5 00		1 1 8 40	2 2 12	3 8 1	4 25	3 8 02	3 23	1 4 13	8 67	2 21	4 99	1 1 19	

JOURNAL

DEBITS					ACCOUNT	CREDITS			
Accounts Receivable	Accounts Payable	General Ledger	Factory Accounts	Folio	DESCRIPTION January, 19—	Factory Accounts	General Ledger	Accounts Payable	Accounts Receivable
					AMOUNTS BROUGHT FORWARD				
			2 2 19 40	√	(38) Paper Direct				
			1 87 40	√	(39) Ink Direct				
			2 03 41	√	(40) Bindery Materials Direct				
			4 85 41	√	(41) Miscellaneous Purchases Direct				
			7 01 41	√	(43) Stock Handling Expense				
			1 9 53 42	√	(44) Hand Composition Dept.				
			6 29 42	√	(45) Machine Composition Dept.				
			1 1 76 42	√	(46) Job Press Dept.				
			3 34 42	√	(47) Small Cylinder Dept.				
			1 4 02 43	√	(48) Medium Cylinder Dept.				
			2 16 43	√	(49) Cutting Machine Dept.				
			1 94 43	√	(50) Machine Folding Dept.				
			2 01 43	√	(51) Bindery Small Machines Dept.				
			9 92 44	√	(52) Bindery Hand Work Dept.				
			37	√	(26) Credit Reserve for Overhead		1 0 8 92		
					"For 1% of previous month's sales"				
		1 2 5 00		39	√	(34) Shipping and Deliveries			
			2 8 0 00	41	√	(43) Stock Handling Expense			
			3 5 0 00	41	√	(42) General Factory Expense			
			11 0 7 85	42	√	(44) Hand Composition Dept.			
			2 0 1 86	42	√	(45) Machine Composition Dept.			
			4 0 2 63	42	√	(46) Job Press Dept.			
			8 7 33	42	√	(47) Small Cylinder Dept.			
			9 2 0 84	43	√	(48) Medium Cylinder Dept.			
			1 3 2 00	43	√	(49) Cutting Machine Dept.			
			3 7 65	43	√	(50) Machine Folding Dept.			
			7 9 96	43	√	(51) Bindery Small Machines Dept.			
			3 7 1 34	44	√	(52) Bindery Hand Work Dept.			
				34	√	(14) Credit Wages Dept.		4 0 9 6 46	
						"Distribution of Pay Roll"			
			23 8 7 45	40	√	(38) Paper Direct			
			4 0 29	40	√	(39) Ink Direct			
			9 5 46	41	√	(40) Bindery Materials Direct			
			9 2 14	41	√	(41) Miscellaneous Purchases Direct			
				32	√	(6) Credit Paper Acct.		2 3 8 7 45	
				32	√	(7) Credit Ink Acct.		4 0 29	
				32	√	(8) Credit Bindery Materials Acct.		9 5 46	
				33	√	(9) Credit Miscellaneous Purchases Acct.		9 2 14	
						"Distribution of Materials Requisitioned"			
		1 2 5 00	66 9 5 72			AMOUNTS CARRIED FORWARD		6 8 2 0 72	

APPENDIX C

UNITED TYPOTHETAE OF AMERICA STANDARD COST FINDING SYSTEM

Principles

The Standard Cost Finding System is a method of cost finding made standard by the adoption, at the International Cost Congress in 1909 and endorsed by each succeeding convention of the United Typothetae of America, of a set of principles upon which the system is based. The system is primarily for the use of printers, and through its installation and operation they are enabled to ascertain the cost of an hour's work in the various departments, the cost of each piece of work produced, and the cost of all the factors entering into the production of printing. These principles are as follows:

1. Productive Hour Method — For the purpose of arriving at the cost of production of printing the standard unit of production in the various departments shall be the productive hour. Where the labor is hand the productive man hour is the unit. Where the machine is the producing factor the productive machine hour is the unit.

2. Standard Hour Cost—The standard hour cost shall be the gross cost exclusive of stock handling and selling, namely, direct labor plus all overhead expense, departmental, and office or general commercial.

3. Cost Per Chargeable Hour—This is found by dividing the total cost of the department, including pro-rated general commercial expense, by the number of productive, or chargeable, hours in that department.

4. Departmentalization—The business shall be divided into departments, each department being a natural division of the processes of manufacture. Also, each department may be subdivided as much as desired.

5. Normal Costs—The costs shall be ascertained monthly, and by months added together until a period sufficiently long has elapsed to obtain a true average cost covering varying conditions. The correct basis is the average for the preceding twelve months. To ascertain this average yearly cost each month, drop the month farthest back and add the last month.

6. Departmental Overhead Expense—This expense shall be distributed to the departments which incur it.

7. Shipping and Deliveries—This expense shall be kept as a separate department and absorbed through General Commercial Expense.

8. Stock Handling—Stock Handling shall be kept as a separate department, and the total expense charged as a percentage against the cost of materials used.

9. Selling—The Selling Expense shall be kept as a separate account and the total expense charged as a percentage to the cost of Completed Work.

10. General Factory Overhead Expense—The sum of this expense shall be distributed over the factory departments on a percentage basis of the total departments' direct expense, including payroll.

11. General Commercial Overhead Expense—The sum of this expense shall be distributed over the various departments on a percentage basis of the total factory cost of departments, including payroll.

12. Depreciation—The original cost of a machine, its equipment and installation, and also of furniture, fixtures, and type, is to be taken as the basis for depreciation. This expense for wear and obsolescence is distributed over the departmental equipment on an estimated life of ten years for machines, furniture, and fixtures (10 per cent. per annum), and of four years for type faces (25 per cent. per annum). On machine composition metal the depreciation is the cost of the shrinkage through melting. Repairs and maintenance shall be considered as separate items of expense and shall not be included in depreciation. In case of extensive replacements, which substantially prolong the life of a machine, the cost therefor shall be charged against the Allowance for Depreciation account.

13. Interest on Plant Investment—Interest at the legal rate shall be charged on the total plant investment, and shall be distributed according to the investment in each department. Interest on materials on hand shall be included in the Stock Handling Expense.

14. Rental on Real Estate Owned—When buildings are owned and occupied by individuals, firms, or corporations, suitable rental shall be charged to the various departments and the amount of such rental credited to real estate income.

15. Monotype Composition—For the purpose of arriving at the hour cost of monotype composition the Keyboard and Caster shall be kept as separate departments.

Division of Expenses

The distribution of expense over the different departments on the Summary of Department Costs for the Month is made on the following basis:

Fixed Charges—These are composed of such items as Rent, Insurance, Taxes, Depreciation, and Interest on Plant Investment.

1. Rent—The basis of distribution is the used square feet. The total used square feet divided into the total rent charge gives the charge per used square foot. This result, multiplied by the department's used area, gives the departmental rent expense.

2. Insurance—This should be distributed on the basis of the value of the departmental equipment. Insurance on materials on hand shall be included in Stock Handling Expense. Boiler insurance is a charge to Power. Liability and compensation insurance is a charge to General Factory Expense.

3. Taxes—Taxes should be distributed on the same basis as Insurance. Income Tax is a charge against Profit and Loss and is not a part of Production Cost.

4. Depreciation—The original cost of a machine, its equipment and installation, and also of furniture, fixtures, and type, is to be taken as the basis for depreciation. This expense for wear and obsolescence is distributed over the departmental equip-

ment on an estimated life of ten years for machines, furniture, and fixtures (10 per cent. per annum), and of four years for type faces (25 per cent. per annum).

5. Interest on Plant Investment—Interest at the legal rate shall be charged on the total plant investment, and be distributed according to the value in each department. (In preparing the annual Loss and Gain statement this interest on plant investment shall be returned to income.)

Current Expenses—These expenses consist of such items as wages, light, heat (when not included in rent), power, spoilage, departmental direct supplies and expense, machine metal waste (gas, for Trade Composition Houses), and type-making for Hand Composition Department.

1. Wages—Each department shall be charged for all the wages it incurs.

2. Light—Light is distributed according to the consumption in each department. (This expense is pro-rated on the basis of the used candle-power in each department.)

3. Power—Power is distributed according to the consumption in each department. (This expense is distributed on the basis of horse-power hours. The horse-power hour cost is found by multiplying the horse-power of the motor on each machine by its actual running hours and dividing this amount into the charge for power.)

4. Spoilage—Spoiled or defective work should be charged to a reserve for spoilage. The provision to be adequate should be a percentage of the departmental cost and should be made a direct expense to the department, or may be absorbed through General Factory Expense.

5. Departmental Direct Supplies and Expense—All such items of expense incurred for any particular department shall be charged directly to that department.

6. Machine Metal Waste—On machine composition metal the depreciation is the cost of the shrinkage through melting. Two per cent. on linotype metal and 3 per cent. on monotype metal of the value of the metal melted each month has been found to be a fair estimate.

General Factory Expense—This is composed of factory expenses which cannot be allocated directly to any department. It includes the salary of superintendent, wages of watchmen, and cost of general factory supplies, etc., and is distributed on a percentage ratio to the total departments direct expense.

General Commercial Expense—This includes salaries, general expense, office expense, bad debts, and shipping and deliveries.

1. Salaries—Charge this account with all administrative, managerial, and clerical salaries.

2. General Expense—Charge this account with all general commercial expenses, not under other classified headings.

3. Office Expense—Charge this account with office supplies, stationery, postage, miscellaneous expenses, etc.

4. Bad Debts—Uncollectible accounts should be charged to an Allowance for Bad Debts. This monthly allowance (say, for illustration, one-half of 1 per cent. of sales) should be absorbed through General Commercial Expense.

5. Shipping and Deliveries—This expense shall be kept as a separate account and absorbed through General Commercial Expense.

Selling Expenses—These are composed of Selling and Advertising.

1. Selling Expense—This account is charged for salaries, commissions, traveling and expenses of the sales force.

2. Advertising—This account is charged with all expenses of advertising.

Total Selling—Under this heading is included salaries, commissions, traveling and miscellaneous expenses of the sales force, advertising, miscellaneous expenses, and the fixed charges where a sales department space is occupied. The total selling expense becomes a percentage of the Cost of Completed Work.

Total Stock Handling—This expense is made up of payroll, miscellaneous supplies and expense, and a proportion of the fixed charges. The total expense of handling materials becomes a percentage of the cost of materials used.*

Total Shipping and Deliveries—This expense is composed of out freight and express, payroll, miscellaneous supplies and expense, and a proportion of the fixed charges. The total is absorbed through General Commercial Expense.

Total General Commercial Expense—Under this heading is included administrative, managerial, and clerical salaries, general expenses, office expenses and fixed charges, shipping and deliveries, Reserve for Bad Debts, and is pro-rated on the basis of a percentage of Factory Cost of Departments.

Type-making for Hand Composition Department—This expense consists of the time consumed in casting sorts, display types, quads, spaces, rules, borders, and other materials cast on type and slug casting machines. This should be added to the total expense of the Hand Composition Department, and deducted from the total expense of the Caster, or Machine Composition Slug Casting Department, after the distribution of General Commercial Expense.

Recommendations

Superintendent—The General Superintendent's salary is charged to General Factory Expense.

Foreman—The wages of a foreman is charged to the departments supervised on the basis of the departments' total payroll hours.

Foreman's Productive Time—Whenever a foreman or other executive performs productive work his time shall be charged to the order at the regular rate per hour of that department. The expense of this time shall be charged to the department payroll at his regular rate.

Apprentices—Apprentice hours, both productive and non-productive, are handled in the same manner as those of journeymen.

* To be omitted by Trade Composition Houses.

Percentage of Productive Time—That ratio of the total hours paid for (man hours), or total possible hours, exclusive of overtime (machine), to the actual producing hours.

Selling Expense—No selling charge shall be made on work produced for the various departments, nor upon manufactured (or finished) stock until such manufactured stock is actually sold.

Miscellaneous Items—Interest and Discount transactions are financial and do not enter into the costs. Donations and Charity items are chargeable directly to Loss and Gain. Organization dues are chargeable to current expense.

Ink—In press work, ink should be charged as a special item, and not included in the cost per hour.

Perpetual Inventory—As a requisite for determining costs, the use of an efficient perpetual materials inventory, kept on stock cards or sheets to show at all times the exact amount of materials on hand, is necessary.

Appraisals—Experience has demonstrated that plant inventories by appraisal companies have proven most satisfactory.

Unused Machinery—When a machine is not used for a long period of time, such machine should not be considered a part of the operating equipment, but should be carried on the books in an Unused Machinery account. Such fixed expenses as are incurred shall be absorbed through General Factory Expense.

Idle Machinery—Where an essential machine or machines are idle intermittently for periods of time, the fixed charges thereof shall be pro-rated during such idleness to the operating departments through the General Factory Expense.

Mechanical Recording Devices—In order to insure greater accuracy in making the time charges to individual orders, the use of mechanical time recording devices is recommended.

Special Machines—Where special machines are installed for specific purposes, it is recommended that separate hour costs be obtained. Where a stripped monotype caster (which is employed for casting rules and material) is used, a separate cost should also be obtained.

Proofreading—Proofreading is a composition expense and the wages paid proofreaders and copyholders should be added to the composition payroll. When proofreaders read for both the Hand and Machine Departments the wages are distributed between the two departments on the basis of comparative production (say, for illustration, four-fifths to machines and one-fifth to the hand department).

Proofreading as a Separate Department—In plants doing mathematical, scientific, and other intricate composition requiring an abnormal amount of proofreading, it is recommended that proofreading be made a separate department, with separate time ticket, and a direct charge made therefor. The proofreader's hour to include copyholding, and other proofreading expense.

Separate Hand Composition Departments—In Hand Composition Departments where one set of employees use machine type and another set of employees use foundry type, each with separate equipment, it is suggested there should be separate depart-

ments of Costs, "Composition Handling Foundry Type" and "Composition Handling Machine Cast Type."

It is also suggested that the same procedure be followed where there are separate Book and Job Composition Departments.

Cost Reconciliation on Summary of Department Costs for Month

Form 9–H

To provide a simple means of proving the accuracy of the set-up (used) cost for the month, a method of Cost Reconciliation is shown. It is used as follows:

To the total actual cost of each department for the month is added the opening Inventory. From the sum so obtained is deducted the closing Inventory. This is the actual cost of work done in each department for the month.

These departmental costs, compared with the total of the set-up (used) costs as summarized from the Individual Job Summaries for work done during the month, will show whether the actual costs of the month have been absorbed by the orders of the month. A similar summary should be obtained for each preceding twelve months' period.

Departments of Costs*

For the purpose of determining costs in the printing business, the following essential departments, or cost centers, have been provided:

Composition—Hand Work.
Machine Composition—Slug Casting Machine.
Monotype Keyboard.
Monotype Caster.
Platen Press—10 x 15 and smaller.
Platen Press—larger than 10 x 15.
Platen Press Mechanical Feed—10 x 15 and smaller.
Platen Press Mechanical Feed—larger than 10 x 15.
Automatic Press.
Pony Cylinder—smaller than 25 x 38.
Medium Cylinder—25 x 38 to 38 x 50.
Cylinder—larger than 50 inches.
Cylinder Mechanical Feed—50 inches or smaller.
Cylinder Mechanical Feed—larger than 50 inches.
Cylinder Two Color.
Rotary Press—Sheet Feed.
Rotary Press—Web.
Cutting.
Machine Folder—Hand feed.
Machine Folder—Mechanical feed.

* With Trade Composition Houses, the departments of cost will be such of the above as apply to the business. In plants of such size that one set of men under one foreman work on machine composition make-up and corrections, and another set of men under another foreman do the regular work of a hand composition department, then there should be two separate departments of costs, "Machine Composition Make-up" and "Hand Composition." Where the Trade Composition House has special machines other than listed above, such as Ludlow, Thompson, Universal, etc., then the hour costs of these machines should be found.

Signature Sewing Machine.
Automatic Power Stitcher.
Ruling.
Bindery—A (Men's hand machines).
Bindery—B (Men's hand work).
Bindery—C (Girls' small power machines).
Bindery—D (Girls' hand work).

Where the printing office has special machines other than listed above, then their own cost should be found.

Standard Cost Forms

The Standard Set comprises twenty different forms. Such of them as applies to departments not in use will of course be omitted. Those suitable for the average printing office are as follows:

Instruction Envelope—No. 1.*
Individual Order Summary—No. 2.*
Composition Daily Hand Work Report—No. 3.
Machine Composition (Slug Casting Machine) Daily Report—No. 4.
Monotype Keyboard Daily Report—No. 5.
Monotype Caster Daily Record—No. 6.
Press Daily Record—No. 7.
Cutter Daily Report—No. 8.
Folding Machine Daily Record—No. 9.
Ruling Machine Daily Record—No. 10.
Bindery Daily Hand Report—No. 11.
Combination Daily Time Report—No. 12.
Employee's Daily Payroll for Time Worked on Machines—No. 13.
Weekly Payroll Sheet—No. 14.
Monthly Individual Payroll Record—No. 15.
Monthly Report of Hand Departments—No. 16.
Monthly Record of Machine Departments—No. 17.
Summary of Department Costs for Month—No. 9–H.
Yearly Record of Costs and Production—No. 18.
Perpetual Stock Inventory Record—No. 19.

Instruction Envelope—Form No. 1*

For purely physical reasons the use of an envelope form of Order Ticket is advocated. By the use of an envelope, which should be made out when the order is entered in the Order Book (see Form G, Standard Accounting System), the loss or misplacement of copy is minimized; into the envelope is put all copy, proof-sheets, and any written instructions concerning the order, also a copy of the completed order. This plan insures a complete history of the order, and is valuable for future reference.

On the face of the envelope is space for full and complete instructions to each department of the plant, and it should never be necessary for an employee of a given

* For Trade Composition Houses, Forms Nos. 1 and 2, while the same in principle as used by general printing plants, are somewhat different in form to meet the necessities of the business. The forms are numbered Nos. 1 T.C. and 2 T.C. respectively.

department to look elsewhere for his instructions than in that space allotted to his own department. It should be the rule to fill out each instruction envelope so complete in details that no question need be asked from start to finish of the order.

The Instruction Envelope accompanies the order through the various processes, and after the order is completed the order ticket has fulfilled its immediate functions and then becomes a part of the office records for possible future reference. The Instruction Envelopes are numbered consecutively.

After the Instruction Envelope is properly made out, an Individual Order Summary (Form 2) is also made out and given the same number.

Individual Order Summary—Form No. 2*

This form is kept in a loose-leaf binder, the successive leaves being according to number. Incidentally, as the Time Reports (Forms 3–12 inclusive) elsewhere explained, come in for entry each day, the act of entering them serves as an order tracer and readily shows in which department any given order was when the daily time was reported.

This form will be most referred to of any of the system, as it contains the accumulated time expended and materials used as the incompleted orders progress. A close scrutiny of this form will show where and how records are kept by means of Forms 3–12 inclusive, the time taken on each operation of the order, together with the cost of both labor and material to date. The aggregate cost of all incompleted orders is the value of the inventory of "Work in Process." When the order is completed, the cost computed, and the order charged to the customer, then the sheet should be taken out of the binder and suitably filed; by removing the completed sheets from day to day as work is finished, there are left only the live or uncharged orders which are still in process.

The columns headed "Cost to Post" and "Sell to Post" are to be used only when interlocked with the financial books (see U.T.A. Standard Accounting System).

Daily Reports and Records

While there are several separate daily time-tickets, the only difference is the variation in columns to fit more closely into the needs of the different physical conditions in the several departments. The time-tickets as shown are practically self-explanatory.

Each employee is required to keep a record of the total hours employed. It is essential that care be taken in filling out these time-tickets, for the report shows not only the time spent upon individual orders, but also a record of the factory production. Where the labor is hand, the productive man hour is the unit; where the machine is the producing factor, the productive machine hour is the unit.

On the back of each time-ticket is listed the different operations peculiar to the department in which it is used, each being given a symbol number. The employee makes use of these symbol numbers by writing them in the "Kind of Work" column, opposite each order number on which he reports time. The columns to the right of Time Finished column are for office use only. The operations listed on the back of the daily

* For Trade Composition Houses, Forms Nos. 1 and 2, while the same in principle as used by general printing plants, are somewhat different in form to meet the necessities of the business. The forms are numbered Nos. 1 T.C. and 2 T.C. respectively.

reports and records are divided to show which are chargeable and which are non-chargeable, making it very easy to divide the time on the ticket under the proper headings and in turn to carry same to Weekly Payroll Sheet (Form 14), and Monthly Individual Payroll Record (Form 15). The chargeable time is also entered against the order, under the proper department heading on the Individual Order Summary (Form 2). Care should be used in designating the chargeable and non-chargeable time, as much depends upon the clear distinction between these two operations.

Composition Daily Hand Work Report—Form No. 3

This report which is used by the compositors is self-explanatory and needs no further comment.

Machine Composition (Slug Casting Machine) Daily Report—Form No. 4

This form is substantially the same as the Composition Daily Hand Work Report (Form 3) excepting that, in addition to reporting time on customers' or stock orders, there should be reported as well the time casting borders, rules, and other materials for the Composing Room. In casting Composing Room materials a monthly order should be made out and the time employed in casting these materials is productive to the Slug Casting Machine.

Metal Account—The metal used for ordinary machine composition does not leave the plant, and returns to the Machine Composition (Slug Casting) Department for remelting; therefore it will not be necessary to make a metal charge between different departments for such metal.

Monotype Keyboard and Caster

The keyboard and caster should be treated as two separate machines and the unit of time in each case is the machine hour, the wages being carried to the department payroll. In ascertaining the cost of monotype work, the actual time of keyboard should be taken at its hour rate and that of the caster at its hour rate, and both charged to the order as productive time.

Monotype Keyboard Daily Report—Form No. 5

This form is self-explanatory.

Monotype Caster Daily Record—Form No. 6

When the caster is used for casting sorts, display types, quads, spaces, and the like, the machine time devoted to such work should be considered as productive, and the cost of these materials is a direct Departmental Expense against the Hand Composition Department. A monthly order should be made out and the machine time employed in casting these materials is productive to the Monotype Caster. The Employee's Daily Payroll slip (Form 13) should also be turned in by each caster employee.

Metal Account—The metal used for ordinary machine composition does not leave the plant and returns to the Machine Composition (Monotype Caster) Department for remelting; therefore it will not be necessary to make a metal charge between different departments for such metal.

Press Daily Record—Form No. 7

The press being the factor, a ticket should be turned in for each press instead of each employee. The Employee's Daily Payroll slip (Form 13) should also be turned in by each press employee. The time from the press record is entered against the order the same as from the other tickets, and in addition, the delays and idle machine time are reported. This opportunity to disclose the aggregate of lost hours in the press room and to know just what caused the loss, is a very important feature of the Cost Finding System. Should there be too much non-chargeable time, it would show inefficiency, while an excess of machine idle time would reflect against the management.

Where there is hand productive work employed in addition to the machine, then this hand work becomes a press-room hand hour cost of its own in that department. This would apply to extra help on make ready, cutting overlays, slip sheeting, removing slip sheets, dusting bronze, etc., each at its proper rate.

In computing the proportion of chargeable or non-chargeable time the full regular operating time is taken as the basis upon which to figure the percentage. Thus, if there are ten cylinder presses, and the plant is running eight hours a day, there will be eighty possible hours of press time; this is considered 100 per cent.

Cutter Daily Report—Form No. 8

This form is self-explanatory.

Folding Machine Daily Record—Form No. 9

This form is self-explanatory.

Ruling Machine Daily Record—Form No. 10

This form is self-explanatory.

Bindery Daily Hand Report—Form No. 11

This time ticket comprises three departments of cost in the bindery:

Bindery B—men's hand work.
Bindery C—girls' small machines.
Bindery D—girls' hand work.

The operations listed on the back of the time ticket are quite complete and will be found to cover practically all work that can be done in these departments. Where there are special bindery machines, it will be necessary to have special time tickets to obtain their particular costs.

Bindery A

Bindery A machines comprise all those bindery hand machines employing men, and a separate cost should be obtained for this department.

Special Machines

Separate costs should be obtained for all expensive power machines such as Signature Sewing Machine, Automatic Stitcher, Embosser, Rounder and Backer, Case Making, Casing-In, Gathering, Duplex Trimmer, Continuous Trimmer, etc.

Combination Daily Time Report—Form No. 12

This combined Daily Time Report is to obviate the necessity of using more than one time ticket where an employee works in several departments. In a small shop, the same workman is often required to perform various operations, and on this ticket his time is divided according to the character of operation and extended by the Cost Clerk under its respective department heading. This facilitates the handling of the time reports, and there is obtained not only the separation of the hand operations by departments, but also the proper payroll distribution.

Employee's Daily Payroll for Time Worked on Machines—Form No. 13

This form is self-explanatory.

Weekly Payroll Sheet—Form No. 14

This form can be used for the disbursing payroll only, or can be divided by departments if desired. The latter is suggested in printing offices where the employees work only in one department; but where employees are transferred to different departments, the monthly individual payroll record (Form 15) is advised.

Monthly Individual Pay Roll Record—Form No. 15

To keep the payroll is of great importance, and has perhaps more to do with the accuracy of the entire Cost Finding System than any other blank or form. The payroll of each department should be kept separately, and the payroll divisions should compare with the department headings in which costs are ascertained.

This form is devised to meet the needs where an employee is transferred to different departments, and shows not only his total hours and wage for the month, but also the hours and wage for each department. This can be used without the weekly payroll sheet (Form 14) if desired, but is not a good form to pay from.

Monthly Report of Hand Departments—Form No. 16

This is a monthly form to record daily chargeable and non-chargeable hours in the different departments and shows the total chargeable and non-chargeable hours in each department. Comparison should be made from month to month and from year to year. Headings must be made for each department.

Monthly Record of Machine Departments—Form No. 17

This monthly report records the daily production of machines, also their output. From this report is taken the department's total chargeable and non-chargeable time as well as the percentage of productive hours. The average output, and cost per unit of production, can be likewise obtained.

It is of prime importance that the percentage of productive hours be taken monthly from Hand and Machine Departments (Forms 16 and 17). Where the operations are standardized, comparison of the percentage of chargeable and non-chargeable time of one plant with that of others is of great value in increasing efficiency.

Summary of Department Costs for the Month—Form No. 9-H

This form is, in effect, the keystone of the Standard Cost Finding System. On this form is obtained the monthly Statement of Cost that discloses the conditions existing in the business for the period.

The method of making the various entries is explained under "Division of Expenses" on previous pages.

On this form also the Factory Department Hour Costs, exclusive of General Commercial, Stock Handling, and Selling Expense are shown. For the purpose of making comparisons of efficiency in the factory it is recommended that these comparisons be made. The analysis of the factory costs should be made only on those items which are under the direct control of the factory management.

It will be found that the results from the summary will vary from month to month; it is important that this variation should be known as well as the reason therefor.

Provision for obtaining the average hour cost for each preceding twelve months is included in this summary. Add together, for each department, all the departmental costs for the preceding twelve months, and divide this sum by the total productive hours of the same department for the same period.

Yearly Record of Costs and Production—Form No. 18

This accessory yearly record shows by months per chargeable hour, the Wage Cost, Factory Cost, Commercial Cost, Total Cost, and the Average Hour Cost for the preceding twelve months. There is also shown the monthly percentage of productive hours together with statistics of production of the total output with the average product per running hour and the cost per one thousand units.

This is a most valuable sheet, and the information contained thereon becomes a barometer by which the efficiency of the department management can be gauged.

Perpetual Stock Inventory Record—Form No. 19

This is a valuable form for recording stock purchased, received, used, and on hand. A separate sheet should be kept for each kind of stock.

How the System Operates

Each workman turns in a daily time report (Forms 3 to 13 inclusive) showing the orders on which he has worked, and the kind of work performed. These daily reports should be scrutinized by the foreman before passing them to the Cost department. These time-tickets are checked up with the employee's record. The total time, chargeable and non-chargeable, is entered each day on the monthly Report of Hand Departments (Form 16), and each day likewise is entered a record of each machine on the Monthly Record of Machine Departments (Form 17).

The Cost Clerk posts all charges to each Individual Order Summary (Form 2). The time taken on each operation is shown by the employee's daily time tickets (Forms 3 to 13 inclusive). When the order is completed, the number of hours expended in each department is totaled and the extension is made at the used cost per hour as determined by the average cost per hour for the preceding twelve months taken from the Summary of Department Costs for the month (Form 9–H). This will give the total labor and overhead cost. The materials used are entered against each order plus their cost of handling which with the total labor and overhead will give the "Cost Completed Work." To the latter is added the Selling Expense, which gives the total cost of the order. To this total cost should be added the proper proportion of profit.

Under any plan of accurate cost finding, the first essential feature is that all material and supplies shall be strictly accounted for. A Stores or Stock Department should be kept, and issuance of material should be made by requisition only and a perpetual record of the inventory of the materials on hand carefully kept (Form 19). After a requisition for materials on orders has been made, the materials and amount should be charged against the particular order for which the stock was issued.

The use of efficient mechanical time recording devices is recommended. They insure a more accurate record, and errors, either through the workman's inability or indifference, are avoided.

Nothing has been said concerning the financial records of the users of the Standard Cost Finding System forms herein described, as it has been assumed that suitable bookkeeping records are kept. The correct recording of expense items is positively necessary to the operation of the Cost Finding System.

The adoption of the Standard Accounting System, with which the Standard Cost Finding System is interlocked, is urged, as it proves the costs and makes the system absolutely reliable.

Units of Operation

A very complete list of operations has been compiled, though it is not expected that all will be used by any one plant. As many as desirable may be used, depending upon the information desired.

The following list of operations in the printing trade is arranged for the convenience of those using a cost system so that they can all use the same number for the same operation and so that the number will at once identify the operation.

All chargeable operations are in odd numbers and non-chargeable operations in even numbers.

Nos. 1 to 57 indicate Composition Room Hand Work.
Nos. 60 to 74 indicate Machine Composition (Slug Casting Machine).
Nos. 90 to 103 indicate Monotype Keyboard.
Nos. 115 to 129 indicate Monotype Caster.
Nos. 145 to 182 indicate Press Department.
Nos. 200 to 208 indicate Cutting Department.
Nos. 225 to 234 indicate Folding Machine.
Nos. 250 to 257 indicate Ruling Machine.
Nos. 275 to 447 indicate Bindery Department.

Composition—Hand Work

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

1 Hand composition
3 Hand ad. composition
5 Office corrections—hand composition
7 Office corrections—machine composition
9 Customer's alterations
11 Make-up

13 Press lock-up
15 Foundry lock-up
17 Registering forms
19 Making changes or corrections on press
21 Special proofs for customer
23 Dividing for colors
25 Inserting linotype customer's alterations
27 Collating or assembling linotype matter
29 Collating or assembling monotype matter
31 Cutting linotype slugs
33 Cutting special material for specific jobs
35 Arranging in alphabetical order
37 Preparing index
39 Arranging copy and cuts
41 Mounting cuts
43 Trimming and squaring cuts
45 Caring for live matter
47 Packing and boxing customer's cuts
49 Checking ads
51 Saw trimmer
53 .....
55 .....
57 .....

Non-Chargeable Time

2 Distribution
4 Relocking forms
6 Changing bad letters or characters on press
8 Changing bad letters
10 Proving galleys
12 Hunting for sorts
14 Hunting for lost pages, electros, and cuts
16 Cutting material for general equipment
18 Laying cases
20 .....
22 .....

Machine Composition—Slug Casting Machine

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

61 Slug casting—changing over
63 Slug casting—composition
65 Slug casting—office corrections
67 Slug casting—customer's alterations
69 Slug casting—borders and other material
71 .....
73 .....

Non-Chargeable Time

60 Slug casting—waiting for copy
62 Slug casting—caring for machine
64 Slug casting—cleaning space bands
66 Slug casting—repairs
68 Slug casting—delays through accident
70 Slug casting—idle
72 .....
74 .....

Monotype Keyboard

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

91 Monotype keyboard—changing over
93 Monotype keyboard—composition
95 Monotype keyboard—office corrections
97 Monotype keyboard—customer's alterations.
99 Monotype keyboard—sort ribbons
101 .....
103 .....

Non-Chargeable Time

90 Monotype keyboard—waiting for copy
92 Monotype keyboard—caring for keyboard
94 Monotype keyboard—repairs
96 Monotype keyboard—delays through accident
98 Monotype keyboard—idle
100 .....
102 .....

Monotype Caster

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

115 Monotype caster—changing over
117 Monotype caster—composition
119 Monotype caster—office corrections
121 Monotype caster—customer's alterations
123 Monotype caster—casting sorts
125 Monotype caster—casting materials
127 .....
129 .....

Non-Chargeable Time

116 Monotype caster—waiting for copy
118 Monotype caster—caring for machine
120 Monotype caster—delays through accident
122 Monotype caster—repairs
124 Monotype caster—machine idle
126 .....
128 .....

Press Room

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

145 Wash-up account customer
147 Registering
149 Make-ready
151 Running
153 Press changes
155 Pulling press proofs
157 Changes and corrections in forms
159 Waiting for ink to dry on *short* run work and turn
161 Chargeable standing time
163 Bronzing
165 Holding press—customer's order
167 Holding press—account customer's proof
169 Holding press—customer's fault
171 Mixing ink for specific job
173 Changing rollers
175 .....
177 .....
179 .....

Non-Chargeable Time

146 General wash-up
148 Oiling
150 Waiting for O. K.
152 Waiting for form
154 Waiting for stock
156 Waiting for feeder
158 Waiting for ink
160 Changing bad letters
162 Standing time—faulty composition
164 Standing time—faulty imposition
166 Standing time—laying plates wrong
168 Standing time—rollers run down
170 Accidental delays
172 Repairing mechanical feeder
174 Repairing motor
176 Repairs—general
178 Machine idle
180 .....
182 .....

Cutting Machine

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

201 Cutting
203 Trimming
205 .....
207 .....

Non-Chargeable Time

200 Changing knives
202 Repairs
204 Idle
206 .....
208 .....

Folding Machine

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

225 Setting machine
227 Running
229 .....
231 .....

Non-Chargeable Time

226 Fixing tapes
228 Repairs
230 Machine idle
232 .....
234 .....

Ruling Machine

KIND OF WORK (INDICATE BY NUMBER)

Chargeable Time

251 Make-ready—setting pens
253 Running
255 .....
257 .....

Non-Chargeable Time

250 Repairs
252 Machine idle
254 .....
256 .....

Bindery

KIND OF WORK (INDICATE BY NUMBER)

"B"—Men's Hand Work

Chargeable Time

275 Backing
277 Benching
279 Beveling
281 Canvas cover making
283 Casing-in
285 Check binding

287 Covering
289 Cutting board
291 Cutting cloth—leather
293 Drawing off and fanning strings
295 Edging or marbling
297 Embossing—hand
299 Finishing
301 Forwarding
303 Lining up and head banding
305 Making cases
307 Paring leather
309 Patent back
311 Reinforcing
313 Rounding books
315 Rounding cases
317 Sawing
319 Smashing
321 Stamping—hand
323 .....
325 .....
327 .....

Non-Chargeable Time

276 Idle
278 .....
280 .....

"C"—Girls' Small Machines

Chargeable Time

351 Setting machines
353 Eyeletting
355 Indexing
357 Numbering or paging
359 Perforating
361 Punching
363 Round cornering
365 Sewing—machine
367 Stitching
369 .....
371 .....
373 .....

Non-Chargeable Time

350 Repairs
352 Idle
354 .....
356 .....

"D"—Girls' Hand Work

Chargeable Time

375 Addressing
377 Caring for jobs in process
379 Check binding
381 Collating
383 Counting
385 Covering
387 Dusting bronze
389 Enclosing in envelopes
391 Extra helper on folder
393 Extra helper on ruling
395 Extra helper on stitcher
397 Folding—hand
399 Gathering
401 Gumming
403 Indexing—hand
405 Inserting
407 Interleaving
409 Jogging
411 Laying on gold
413 Mailing (sacking and routing)
415 Numbering—hand
417 Padding
419 Pasting
421 Sewing—hand
423 Silk or thread stitching
425 Slip sheeting and removing slip sheets
427 Stringing
429 Stripping
431 Taking apart
433 Tipping
435 Tissuing
437 Tying
439 Wrapping—banding
441 .....
443 .....
445 .....
447 .....

Non-Chargeable Time

376 Idle
378 .....
380 .....

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